INTERNATIONAL CALL FOR TENDER ACTED Iraq

Date: **24/04/2019**

Tender N°: **T/10DOD/I53PTC/ERBIL/24042019/001**

ACTED is requesting through this tender **tents-specialized companies** to provide detailed written quotations for the supply of the following products:

PRODUCT SPECIFICATIONS:

1. Description: 2 lots of full tents and tents cover with different size
2. Product class / category: Goods
3. Product stage: Finished products
4. INCOTERM (delivery conditions): DDP[1] Acted warehouse in Dohuk governorate including its districts and Kirkuk Yahyawa camp
5. Quantities and specifications: As per below details – Annex A to F.

VALIDITY OF THE OFFER: 6 months (recommended)

Important note: Annexes A and B contain two options regarding the quality of the covers.

Lot #	Item #	Description	Product category	Quantity	Product stage	INCOTERM/Delivery Point
1	1.a.1	Supply and transporting of 4mx4m tents covers – Annex A – option A	Supplies	5 928	New, Complete and ready-to-use	DDP / ACTED warehouse in Duhok governorate including its districts (zakho, shekhan , Faide ..)
	1.a.2	Supply and transporting of 4mx4m tents covers – Annex A – option B		5 928		
	1.b.1	Supply and transporting of 4mx4m full tents (structure and cover) – Annex B – Option A		112		
	1.b.2	Supply and transporting of 4mx4m full tents (structure and cover) – Annex B – Option B		112		
2	2.a.1	Supply and transporting of 4mx4m tents covers – Annex C– option A	Supplies	30	New, Complete and ready-to-use	DDP / Kirkuk Yahyawa camp
	2.a.2	Supply and transporting of 4mx4m tents covers – Annex C– option B		30		
	2.b.1	Supply and transporting of 4mx6m tents covers – Annex D– option A		45		
	2.b.2	Supply and transporting of 4mx6m tents covers – Annex D– option B		45		
	2.c.1	Supply and transporting of 7mx17m tents covers – Annex E– option A		65		
	2.c.2	Supply and transporting of 7mx17m tents covers – Annex E– option B		65		

[1] DDP - "Delivered Duty Paid" means that the seller delivers the goods when the goods are placed at the disposal of the buyer, cleared for import on the arriving means of transport ready for unloading at the named place of destination. The seller bears all the costs and risks involved in bringing the goods to the place of destination and has an obligation to clear the goods not only for export but also for import, to pay any duty for both export and import and to carry out all customs formalities. (http://www.iccwbo.org/products-and-services/trade-facilitation/incoterms-2010/the-incoterms-rules/)

	2.d.1	Supply and transporting of 4mx4m full tents (structure and cover) – Annex F– option A		25		
	2.d.2	Supply and transporting of 4mx4m full tents (structure and cover) – Annex F– option B		25		

DELIVERY PLANNING:

The planning is subject to change

Date of Delivery	Quantity					
	1.A	1.B	2.A	2.B	2.C	2.D
2nd of June 2019	2420	112				
9th of June 2019	1200					
16th of June 2019	708					
23rd of June 2019	600					
30th of June 2019	600					
7th of July 2019	400		30	45	65	25

GENERAL CONDITIONS:

1. The closing date of this tender is fixed on **15/05/2019 (May 15th, 2019) at 16:00 (Iraq time)** in ACTED office at the following address:
   a. **ACTED representative office in Erbil, 6th street (Khabat street) on the right after Ankawa intersection,1st street on the right, House #: 240/1/467 Hadiyab quarter, Ainkawa**
   b. **ACTED representative office in Dohuk, Golvin 67 St. Malta Islam Quarter - Dohuk 3rd Street from Malta Hill Traffic Light to Down Town**
   c. Or emailed to both: iraq.tender@acted.org and tender@acted.org

In case of electronic submission, please:

- Mention the tender reference number mentioned above in the subject tab.
- Fill the tender document, sign, stamp, and scan and send them. Electronic stamp and signatures are not acceptable.

2. Offers shall be submitted in **English** only, in US Dollar (**USD)** (Mandatory).
3. Bidders will fill, sign, stamp and return the Offer form according to ACTED's format.
4. Bidders will sign and return all pages of the Product Specifications for which they apply.
5. The offer to the call for tender will not result in the award of a contract.
6. The offer must be submitted to ACTED purchase department in a sealed envelope with the mention "**T/10DOD/I53PTC/ERBIL/24042019/001 not to be opened before 15/05/2019"**
7. Unsealed envelopes and late offers will not be considered.
8. Bidders can apply for one lot or more. Different lots can be awarded to different suppliers.
9. Bidders should provide offer(s) for all items in one lot to be considered eligible.
10. The quantities are subject to change, ACTED reserves the right to delete any item/lot after the closing date. The unit price submitted will be considered for quantities within a range -/+ 15% of the total quantity per item.
11. To ensure that funds are used exclusively for humanitarian purposes and in accordance with donors' compliance requirements, all contract offers are subject to the condition that contractors do not appear on anti-terrorism lists, in line with ACTED's anti-terrorism policy. To this end, ACTED reserves the right to carry out anti-terrorism checks on contractor, its board members, staff, volunteers, consultants, financial service providers and sub-contractor.

NOTE: ACTED adopts a zero tolerance approach towards corruption and is committed to respecting the highest standards in terms of efficiency, responsibility and transparency in its activities. In particular, ACTED has adopted a participatory approach to promote and ensure transparency within the organization and has set up a Transparency focal point (Transparency Team supervised by the Director of Audit and Transparency) via a specific e-mail address. As such, if you witness or suspect any unlawful, improper or unethical act or business practices (such as soliciting, accepting or attempting to provide or accept any kickback) during the tendering process, please send an e-mail to transparency@acted.org.

SPECIFIC CONDITIONS:

1. The answers to this tender should include a written quotation including all the product specifications, the price per unit, technical specifications and unit.
2. Warranty of the delivered items should be of two years.
3. A Certificate of Origin must be provided.
4. Two completes samples for each sort of tents will be asked for the pre-selected bidders. One will be used for **material testing by a laboratory** and the other one will be used for **installation and rain tests**. These samples will be damaged and will not be returned to the bidders.
5. Selected bidders should measure the dimensions of tent structures of item 2A, 2B and 2C before manufacturing to make sure the covers will fit on all tents structures.

SELECTION CRITERIA:

Offers received will be evaluated based on the following criteria:

- **50% TECHNICAL CRITERIA:** PROOF OF PAST EXPERIENCE, RESPECT OF THE TECHNICAL SPECIFICATIONS, QUALITY OF THE MATERIAL
- **30% LOGISTICS:** ABILITY FORM THE SUPPLIER TO RESPECT THE DELIVERY PLANNING
- **20% FINANCIAL OFFER:** BEST PRICE
- The following bids will be considered ineligible: Companies which will fail the laboratory test

Company Name: _____

Authorized Representative Name: _____

Signature: _____

Stamp:

OFFER FORM ACTED Iraq

Date:

Tender N°: **T/10DOD/I53PTC/ERBIL/24042019/001**

To be Filled by Bidder (COMPULSORY)

Details of Bidding Company:

1. Company Name: _____
2. Company Authorized Representative Name: _____
3. Company Registration No: _____
   No/Country/ Ministry
4. Company Specialization: _____
5. Mailing Address (Physical Address): _____
   Country/Governorate./City/St name/Shop-Office No
   a. Contact Numbers: Land Line: _____ / Mobile No: _____
   b. E-mail Address: _____

I undersigned _____, agree to provide ACTED, non-profit NGO, with items answering the following specifications, according to the general conditions and responsibilities that I engage myself to follow.

PLEASE FILL IN THE FOLLOWING TABLES, ONE FOR EACH LOT, EACH LOT CORRESPONDING TO DIFFERENT LOCATIONS:

LOT 1: delivery in ACTED warehouse in Duhok governorate including its districts (Zakho, Shekhan , Faide ..)

No.	Description	Unit	Quantity	Supplier's specifications (if different)	Country of Origin	Unit Price USD (DDP)	Total Price USD (DDP)
1.A.1	Supply and transporting of 4mx4m tents covers **Annex A Option A**	PCE	5 928				
1.A.2	Supply and transporting of 4mx4m tents covers **Annex A Option B**	PCE	5 928				
1.B.1	Supply and transporting of 4mx4m full tents (structure and cover) **Annex B Option A**	PCE	112				
1.B.2	Supply and transporting of 4mx4m full tents (structure and cover) **Annex B Option B**	PCE	112				
						Total Price USD	

BIDDER'S COMMENTS/REMARKS:

1. _____
2. _____
3. _____

END OF LOT 1

LOT 2: delivery in Kirkuk, Yahyawa camp

No.	Description	Unit	Quantity	Supplier's specifications (if different)	Country of Origin	Unit Price USD (DDP)	Total Price USD (DDP)
2.A.1	Supply and transporting of 4mx4m tents covers **Annex C – option A**	PCE	30				
2.A.2	Supply and transporting of 4mx4m tents covers **Annex C – option B**	PCE	30				
2.B.1	Supply and transporting of 4mx6m tents covers **Annex D – option A**	PCE	45				
2.B.2	Supply and transporting of 4mx6m tents covers **Annex D – option B**	PCE	45				
2.C.1	Supply and transporting of 7mx17m tents covers **Annex E – option A**	PCE	65				
2.C.2	Supply and transporting of 7mx17m tents covers **Annex E – option B**	PCE	65				

2.D.1	Supply and transporting of 4mx4m full tents (structure and cover) **Annex F – option A**	PCE	25				
2.D.2	Supply and transporting of 4mx4m full tents (structure and cover) **Annex F – option B**	PCE	25				
						Total Price USD	

BIDDER'S COMMENTS/REMARKS:

1. _____
2. _____
3. _____
4. _____

END OF LOT 2

BIDDER'S TERMS AND CONDITIONS:

1. Validity of the offer: _____ (6 months or more recommended)
2. Terms of delivery: please fill-in the following table with the quantity per item per week you can deliver

Date of Delivery	Quantities					
	1.A	1.B	2.A	2.B	2.C	2.D
2nd of June 2019						
9th of June 2019						
16th of June 2019						
23rd of June 2019						
30th of June 2019						
7th of July 2019						

3. Terms of payment: 100% after completing the installation

Name of Bidder's Authorized Representative: _____

Authorized signature and stamp: _____

Date: _____

BIDDER'S QUESTIONNAIRE ACTED Iraq

Date:

Tender N°: **T/10DOD/I53PTC/ERBIL/24042019/001**

PART I: INFORMATION			
A. Company Details and General Information			
Name of Company		Trading As	
Address (headquarters)		Telephone	
Zip Code (headquarters)		Fax	
City (headquarters)		E-mail address 1	
PO Box		E-mail address 2	
Country (headquarters)		Website address	
Parent Company or name of owner		Subsidiaries/ Associates/ Overseas Representative	
Sales Person's Name		Sales Person's Position	
Sales Person's phone		Sales Persons' E-mail	
Governance of the company: Chairman, Vice-Chairman, Treasurer or Secretary of the Board of Directors or Board of Trustees			
Name (as in passport or other government-issued photo ID)		Date of birth (mm/dd/yyyy)	
Government-issued photo Identification Document (ID) number		Type of ID	
ID country of issuance		Rank or title in organization	
Other names used (nicknames or pseudonyms not listed as "Name")		Gender (e.g. male, female)	
Current employer and job title:		Occupation	
Address of residence		Citizenship(s)	
Province/Region		E-mail address	
Is the individual a U.S. citizen or legal permanent resident?	☐Yes ☐No	Professional Licenses – State Issued Certifications	
Management of the company: CEO, Executive Director, Deputy Director, President or Vice-President			
Name (as in passport or other government-issued photo ID)		Date of birth (mm/dd/yyyy)	
Government-issued photo Identification Document (ID) number		type of ID	
ID country of issuance		Rank or title in organization	
Other names used (nicknames or pseudonyms not listed as "Name")		Gender (e.g. male, female)	
Current employer and job title:		Occupation	
Address of residence		Citizenship(s)	
Province/Region		E-mail addresses	
Is the individual a U.S. citizen or legal permanent resident?	☐Yes ☐No	Professional Licenses – State Issued Certifications	
Management of the company: Chief Finance Officer or Chief Accountant			

Name (as in passport or other government-issued photo ID)		Date of birth (mm/dd/yyyy)	
Government-issued photo Identification Document (ID) number		type of ID	
ID country of issuance		Rank or title in organization	
Other names used (nicknames or pseudonyms not listed as "Name")		Gender (e.g. male, female)	
Current employer and job title:		Occupation	
Address of residence		Citizenship(s)	
Province/Region		E-mail addresses	
Is the individual a U.S. citizen or legal permanent resident?	☐Yes ☐No	Professional Licenses – State Issued Certifications	
Company's staff & insurance			
No. Full Time Employees:		Employee average work wage per hour:	
% of Men to Women:		Any employee(s) with relatives working with ACTED?	☐Yes ☐No
No. of Children:		What is the legal minimum wage paid?	☐Yes ☐No
In what capacity?		Are paid vacations offered?	☐Yes ☐No
What are their ages?		Are flexible working hours offered?	☐Yes ☐No
Name of insurance company:		Staff covered by health insurance?	☐Yes ☐No
Description of the Company			
Type of Business (multiple choices possible):	☐ Manufacturing ☐ Consulting Company ☐ Authorized Agent	☐ Manufacturing ☐ Trader ☐ Other, please specify : _____	
Sector of Business (multiple choices possible):	☐ Goods / supplies ☐ Services ☐ Equipment	☐ Works ☐ Other, please specify : _____	
Year Established:		Country of registration:	
Licence number:		Valid until:	
Working languages:	☐ English ☐ French ☐ Spanish	☐ Arabic ☐ Chinese ☐ Other, please specify : _____	
Technical documents available in:	☐ English ☐ French ☐ Spanish	☐ Arabic ☐ Chinese ☐ Other, please specify : _____	
B. Financial Information			
VAT Number:		Tax Number:	
Bank Name:		Bank Account Number:	
Bank Address:		Account Name:	
Swift/BIC number:		Standard Payment Terms:	
Has the company been audited in the last 3 years?			☐Yes ☐No

Please attach a copy of the company's most recent Annual or Audited Financial Report				☐ Attached	
Annual Value of Total Sales for the last 3 Years:					
Year: USD:		Year: USD:		Year: USD	
Annual Value of Export Sales for the last 3 years					
Year: USD:		Year: USD:		Year: USD:	

C. Experience

Company's recent business with ACTED and/or other International Aid Agencies or United Nations Agencies:

#	*Organisation*	*Contact person*	*Phone/E-mail*	*Goods/Works/Services*	*Value (USD)*	*Destination*
1						
2						
3						
4						
5						

What is your company's main area of expertise?	
What is your company's business coverage area?	☐ National ☐ Restricted to (specify location) :
To which countries has your company exported and/or managed projects in the last 3 years?	
Provide any other information that demonstrates your company's qualifications and experience (eg. awards)	
List any national or international Trade/Professional Organisations of which your company is a member	

D. Technical Capability

Type of Quality Assurance Certificate		☐ Attached
Type of Certification/Qualification Documents		☐ Attached
International Offices/Representation		

List below up to 10 of the core Goods and/or Services your company sells:

1)	6)
2)	7)
3)	8)
4)	9)
5)	10)

List the main assets of your company (trucks & heavy machines, heavy & valuable equipment, premises & warehouses, production sites etc.)

1)	6)
2)	7)
3)	8)
4)	9)
5)	10)

E. Miscellaneous

Does your company have an Environmental Policy? (Yes/No)	☐Yes ☐No	
Does your company have an Ethical Trading Policy? (Yes/No)	☐Yes ☐No	
Does your company have an Anti-terrorist Policy? (Yes/No)	☐Yes ☐No	
Is your company compliant with the EU General Data Protection Regulation (or equivalent)? (Yes/No)	☐Yes ☐No	
If you answered yes to the above two questions, please attach copies of your policy:		☐ Attached

Has your company ever been bankrupt, or is in the process of being wound up, having its affairs administered by the courts, has entered into an arrangement with creditors, has suspended business activities, is the subject of proceedings concerning these matters, or is in any analogous situation arising from a similar procedure provided for in national law?		☐Yes ☐No
If you answered yes, please provide details:		
Has your company ever been convicted of an offence concerning its professional conduct by a judgment which as force of res judicata?		☐Yes ☐No
If you answered yes, please provide details:		
Has your company ever been guilty of grave professional misconduct proven by other means?		☐Yes ☐No
If you answered yes, please provide details:		
Has your company ever not fulfilled its obligations relating to the payment of social security contributions, or the payment of taxes in accordance with the law of the country in which it is established, or with those of France, or those of the country where the contract is to be performed?		☐Yes ☐No
If you answered yes, please provide details:		
Has your company ever been the subject of a judgement, which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity?		☐Yes ☐No
If you answered yes, please provide details:		
Has your company ever been declared to be in serious breach of contract for failure to comply with its contractual obligations, following another procurement procedure or grant award procedure financed by a donor country?		☐Yes ☐No
If you answered yes, please provide details:		
Has your company ever been declared to be in serious breach of contract for failure to comply with its contractual obligations, following another procurement procedure or grant award procedure financed by a donor country?		☐Yes ☐No
If you answered yes, please provide details:		
Has your company ever been in any dispute with any Government Agency, the United Nations, or International Aid Organisations (including ACTED)?		☐Yes ☐No
If you answered yes, please provide details:		
Do you agree with terms of payment of 30 days? ☐Yes ☐No	Do you accept visit of ACTED staff & external auditors to your office?	☐Yes ☐No

PART II: CERTIFICATION

I, the undersigned warrant that the information provided in this form is correct, and in the event of changes, details will be provided to ACTED as soon as possible in writing. I also understand that ACTED does not do business with companies, or any affiliates or subsidiaries, which engage in any practices that are in breach of ACTED's Child Protection, Sexual Exploitation and Abuse Protection, Conflict of Interest, Anti-fraud, Anti-terrorism Policy and Data Protection Policies (available on request).

Name:		Date:	
Title/Position		Place:	
E-mail address (for contact for verification purposes):		Signature:	
Phone number (for contact for verification purposes):		Company Stamp:	

Check list of supporting documents		For ACTED use only
1) Trading license	☐ Attached	☐ Checked
2) VAT registration/tax clearance certificate	☐ Attached	☐ Checked

3)	Company profile	☐ Attached	☐ Checked
4)	Proof of trading/dealership/agent	☐ Attached	☐ Checked
5)	Evidence of similar contracts	☐ Attached	☐ Checked
6)	References	☐ Attached	☐ Checked
7)	Particulars of CEO and key personnel	☐ Attached	☐ Checked
8)	Articles of Association & Certificate of incorporation	☐ Attached	☐ Checked
9)	Financial statements (latest)	☐ Attached	☐ Checked
10)	Other (specify):	☐ Attached	☐ Checked

Company Name: _____

Authorized Representative Name: _____

Signature: _____

Stamp:

BIDDER'S ETHICAL DECLARATION ACTED Iraq

Date:

Tender N°: **T/10DOD/I53PTC/ERBIL/24042019/001**

Bidder's name: _____

Bidder's address: _____

CODE OF CONDUCT:

1. Labour Standards

The labour standards in this code are based on the conventions of the International Labour Organisation (ILO).

- *Employment is freely chosen*

There is no forced, bonded or involuntary prison labour. Workers are not required to lodge `deposits' or their identity papers with the employer and are free to leave their employer after reasonable notice.

- *Freedom of association and the right to collective bargaining are respected*

Workers, without distinction, have the right to join or form trade unions of their own choosing and to bargain collectively. The employer adopts an open attitude towards the legitimate activities of trade unions. Workers representatives are not discriminated against and have access to carry out their representative functions in the workplace. Where the right to freedom of association and collective bargaining is restricted under law, the employer facilitates, and does not hinder, the development of parallel means for independent and free association and bargaining.

- *Working conditions are safe and hygienic*

A safe and hygienic working environment shall be provided, bearing in mind the prevailing knowledge of the industry and of any specific hazards. Adequate steps shall be taken to prevent accidents and injury to health arising out of, associated with, or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment. Workers shall receive regular and recorded health and safety training, and such training shall be repeated for new or reassigned workers. Access to clean toilet facilities and potable water and, if appropriate, sanitary facilities for food storage shall be provided. Accommodation, where provided, shall be clean, safe, and meet the basic needs of the workers. The company observing the standards shall assign responsibility for health and safety to a senior management representative.

- *Child Labour shall not be used*

There shall be no new recruitment of child labour. Companies shall develop or participate in and contribute to policies and programmes, which provide for the transition of any child found to be performing child labour to enable her/him to attend and remain in quality education until no longer a child. Children and young people under 18 years of age shall not be employed at night or in hazardous conditions. These policies and procedures shall conform to the provisions of the relevant International Labour Organisation (ILO) standards.

- *Living wages are paid*

Wages and benefits paid for a standard working week meet, at a minimum, national legal standards or industry benchmarks. In any event wages should always be high enough to meet basic needs and to provide some discretionary income. All workers shall be provided with written and understandable information about their employment conditions in respect to wages before they enter employment, and about the particulars of their wages for the pay period concerned each time that they are paid. Deductions from wages as a disciplinary measure shall not be permitted nor shall any deductions from wages not provided for by national law be permitted without the express and informed permission of the worker concerned. All disciplinary measures should be recorded.

- *Working hours are not excessive*

Working hours comply with national laws and benchmark industry standards, whichever affords greater protection. In any event, workers shall not on a regular basis be required to work in excess of the local legal working hours. Overtime shall be voluntary, shall not exceed local legal limits, shall not be demanded on a regular basis and shall always be compensated at a premium rate.

- *No discrimination is practised*

There is no discrimination in hiring, compensation, access to training, promotion, termination or retirement based on race, caste, national origin, religion, age, disability, gender, marital status, sexual orientation, union membership or political affiliation.

- *Regular employment is provided*

To every extent possible work performed must be on the basis of a recognised employment relationship established through national law and practice. Obligations to employees under labour or social security laws and regulations arising from the regular employment relationship shall not be avoided through the use of labour-only contracting, sub-contracting or home-working arrangements, or through apprenticeship schemes where there is no real intent to impart skills or provide regular employment, nor shall any such obligations be avoided through the excessive use of fixed-term contracts of employment.

- *No harsh or inhumane treatment is allowed*

Physical abuse or discipline, the threat of physical abuse, sexual or other harassment and verbal abuse or other forms of intimidation shall be prohibited.

B. Environmental Standards

Suppliers should as a minimum comply with all statutory and other legal requirements relating to the environmental impacts of their business. Detailed performance standards are a matter for suppliers, but should address at least the following:

- *Waste Management*

Waste is minimised and items recycled whenever this is practicable. Effective controls of waste in respect of ground, air, and water pollution are adopted. In the case of hazardous materials, emergency response plans are in place.

- *Packaging and Paper*

Undue and unnecessary use of materials is avoided, and recycled materials used whenever appropriate.

- *Conservation*

Processes and activities are monitored and modified as necessary to ensure that conservation of scarce resources, including water, flora and fauna and productive land in certain situations.

- *Energy Use*

All production and delivery processes, including the use of heating, ventilation, lighting, IT systems and transportation, are based on the need to maximise efficient energy use and to minimise harmful emissions.

- *Safety precautions for transport and cargo handling*

All transport and cargo handling processes are based on the need to maximise safety precautions and to minimise potential injuries to ACTED beneficiaries and staff as well as the suppliers' employees or those of its subcontractors.

C. Business Behaviour

The conduct of the supplier should not violate the basic rights of ACTED's beneficiaries.

The supplier should not be engaged
1. in the manufacture of arms
2. in the sale of arms to governments which systematically violate the human rights of their citizens; or where there is internal armed conflict or major tensions; or where the sale of arms may jeopardise regional peace and security.

D. ACTED procurement rules and regulations

Suppliers should comply with ACTED procurement rules and regulations outlines in ACTED Logistics Manual Version 1.2. or above. In particular, ACTED's procurement policy set out in Section 2.1 and 2.4. (contract awarding). By doing so, Suppliers acknowledge that they do not find themselves in any of the situations of exclusion as referred to under section 2.4.2.

Operating Principles

The implementation of the Code of Conduct will be a shared responsibility between ACTED and its suppliers, informed by a number of operating principles, which will be reviewed from time to time.

ACTED will:
1. Assign responsibility for ensuring compliance with the Code of Conduct to a senior manager.
2. Communicate its commitment to the Code of Conduct to employees, supporters and donors, as well as to all suppliers of goods and services.
3. Make appropriate human and financial resources available to meet its stated commitments, including training and guidelines for relevant personnel.
4. Provide guidance and reasonable non-financial support to suppliers who genuinely seek to promote and implement the Code standards in their own business and in the relevant supply chains, within available resources.
5. Adopt appropriate methods and systems for monitoring and verifying the achievement of the standards.
6. Seek to maximise the beneficial effect of the resources available, e.g. by collaborating with other NGOs, and by prioritising the most likely locations of non-compliance.

ACTED expects suppliers to:
1. Accept responsibility for labour and environmental conditions under which products are made and services provided. This includes all work contracted or sub-contracted and that conducted by home or other out-workers.

2. Assign responsibility for implementing the Code of Conduct to a senior manager.
3. Make a written Statement of Intent regarding the company's policy in relation to the Code of Conduct and how it will be implemented, and communicate this to staff and suppliers as well as to ACTED.

Both parties will
1. Require the immediate cessation of serious breaches of the Code and, where these persist, terminate the business relationship.
2. Seek to ensure all employees are aware of their rights and involved in the decisions which affect them.
3. Avoid discriminating against enterprises in developing countries.
4. Recognise official regulation and inspection of workplace standards, and the interests of legitimate trades unions and other representative organisations.
5. Seek arbitration in the case of unresolved disputes.

Qualifications to the Policy Statement

The humanitarian imperative is paramount. Where speed of deployment is essential in saving lives, ACTED will purchase necessary goods and services from the most appropriate available source.

ACTED can accept neither uncontrolled cost increases nor drops in quality. It accepts appropriate internal costs but will work with suppliers to achieve required ethical standards as far as possible at no increase in cost or decrease in quality.

I undersigned _____; agree to adopt the above Code of Conduct and to commit to comply with the labour and environmental standards specified, both in my own company and those of my suppliers.

Name & Position of Bidder's authorized representative _____

Authorized signature _____

BIDDER'S CHECK LIST ACTED Iraq

Date:

Tender N°: **T/10DOD/I53PTC/ERBIL/24042019/001**

BEFORE SENDING YOUR BIDDING DOCUMENTS, PLEASE CHECK THAT EACH OF THE FOLLOWING ITEM IS COMPLETE AND RESPECTS THE FOLLOWING CRITERIA:

Description	To be filled in by Bidder		For ACTED use only (to be filled in by Purchase Committee)		
	Included		Present		Comments
	Yes	No	Yes	No	
1.An original and one copy of the bid have been provided **(compulsory for one original bid)**					
2. PART 1 (form PRO-05) – Instructions to Bidders is attached, filled, signed and stamped by the supplier.					
3. PART 2 (form PRO-06) –Offer Form is attached, filled, signed and stamped by the supplier. **(compulsory)**					
4. The prices in the Offer Form are in USD **(compulsory)**					
5. PART 3 (form PRO-06-01) – Bidders Questionnaire Form is attached, filled, signed and stamped by the supplier.					
6. PART 4 – (form PRO-06-02) – Bidder's Ethical Declaration is attached, filled, signed and stamped by the supplier.					
7. The Bidding documents are filled in English.					
8. ANNEXES – Proofs of past performances in a similar field of activity (e.g. past deliveries of similar items) are provided					
9. ANNEXES – A Copy of Company registration documents, ID of the owner and license are included					
10. ANNEXES – Coloured pictures (or samples) of item(s) are included					
11. All the technical annexes should be signed and stamped					

Name & Position of Bidder's authorized representative _____

Authorized signature _____

Annex A

TECHNICAL SPECIFICATIONS:
A-TENT COVER:

All canvas materials for the tent must meet the specifications below and ISO/DIS 5912.

The specifications of the tent are described below according to technical and performance requirements in five parts as follows:

1. MATERIALS
2. GENERAL POINTS FOR THE FINISHED PRODUCT
3. MAKE-UP OF THE OUTER TENT
4. MAKE-UP OF THE INNER TENT
5. ACCESSORIES
6. PACKING

PART 1: MATERIALS

All canvas materials for the tent must be in accordance with the specified characteristics and with ISO/DIS 5912, if not specified otherwise hereunder

1.1 OUTER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Poly-Cotton: (Polyester/Cotton blended fibers yarns). Cotton: 40% (±10), polyester: 60% (±10) = Polyester: 50% to 70%, with balance in cotton.
2. Specific weight (g/m2), ISO 3801	350 g/m2 ±15% in finished state.
3. Color	Natural white, not dyed.
4. Water vapor permeability, ISO17229	Minimum 2000g/m2/24h.
5. Tensile strength (N), ISO 13934-1 To apply on 10 test pieces of plain canvas. To apply on 5 test pieces with seams, cut from the tent, perpendicular to the seam.	Warp and Weft 850 N minimum. For plain canvas test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50 mm sample.
6. Tear resistance (N) - Started, ISO 9073-4	Warp and Weft 60 N minimum.
7. Water penetration resistance, ISO 811 Test pieces of plain canvas.	30 hPa minimum, with increasing speed at 100mm per minute.
8. Rain penetration resistance, ISO5912 Test piece is the complete outer tent only.	Resistance to rain as per point 4.2.11 applying procedure as point 5.6 during 2h on one end and 3h on one side.
9. Dimensional variation when soaking in water, ISO 7771	Maximum 3%.
10. Resistance to micro-organisms on tensile strength under, ISO 13934-1 after BS6085 (soil burial - 28 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 5 test pieces in warp 5 test pieces in weft.
11. Efficiency of water-repellent treatments after soaking in water. Same test as point 7 on samples soaked in water in point 9.	30 hPa minimum, with increasing speed at 100mm per minute.
12. Efficiency of fungicides product after soaking in water. Same test as point 10 on samples soaked in water in point 9.	Maximum 10% of additional loss as compared with the result from point 10. For each type of test: 5 test pieces in warp 5 test pieces in weft.

13. Tensile strength after exposure to UV and moisturizing (climatic simulation). Exposure in a climatic chamber under ISO4892-2, type A, 360 hours, followed by tensile test under ISO13934-1.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 3 test pieces in warp and 3 test pieces in weft
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.1 OUTER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Waterproof, UV resistant, flame and fire retardant, made from 540 gr/m² (±10 gr/m²) polyester canvas. 4 mm packthread to be sewn to the head of the outer covering layer (canvas) for stretching.
3. Color	Natural white, not dyed.
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.2 INNER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Polyester/Cotton blended fibers yarns. Cotton: 40%(±10), polyester: 60%(±10) = Polyester: 50% to 70%, balance cotton or Cotton 100%.
2. Specific weight (g/m2) ISO 3801	130 g/m2 ±10% in finished state.
3. Color	Dyed cream or beige color.
4. Water vapor permeability ISO 17229	Minimum 2000 g/m2/24h.
5. Tensile strength (N) ISO 13934-1	Warp and Weft 300 N minimum.
6. Tear resistance (N) - Started ISO 9073-4	Warp and Weft 20 N minimum.
7. Resistance to micro-organisms on tensile strength under ISO 13934-1 after BS6085 (soil burial - 14 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in warp, 5 test pieces in weft.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.2 INNER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Jute fabric
2. Specific weight (g/m2),	40gr/m²
3. Insulation Layer	Isolation material Specific weight 200 gr/m² (±10 gr/ m²) with single air bubble which are covered on both sides with aluminum foil.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.3 MUD FLAPS PE FABRIC

Title	Required minimum values
1.**Composition**	Woven high-density polyethylene black fibers fabric laminated on both sides with low density polyethylene coating.
2. Specific weight (g/m2) ISO 3801	180gr/m2±5%
3.a. Tensile strength (N) ISO 13934-1 To apply on 10 test pieces of plain PE fabric. To apply on 5 test pieces with seams, cut from the tent, perpendicularly to the seam, at the junction of PE and canvas.	Warp and Weft 650 N minimum. Elongation 15% to 25%. For plain PE fabric test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50mm sample.
3.b. Tensile strength (N) ISO 1421 To apply on 10 test pieces of plain canvas and 10 test pieces with seams of one side wall canvas, one side PE mud flap.	Warp 650N minimum Weft 650N minimum for each type of test: 5 test pieces in warp 5 test pieces in weft.
4.Tear resistance (N) - ISO 4674 (A2)	Warp 100N minimum Weft 100N minimum.
5. Resistance to micro-organisms	Insensitive to micro-organisms. Not to be tested.
6. Resistance to UV in percentage of tensile strength loss under ISO1421 after 1500 hours UV under ASTM G53/94 (UVB 313 nm peak)	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in weft 5 test pieces in warp
7. Color	White if made with IFRC/ICRC/UNHCR standard plastic sheeting. Or other colors except green/military green/brown and various khaki colors.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 6 (should pass the test).

1.4 MOSQUITO NET FOR DOORS, WINDOWS, INNER AND OUTER TENTS

Title	Required minimum values
1. Material ISO1833	Polyester 100%, or PE 100%
2. Fabric ISO8388	Warp knitted.
3. Denier	75/100 for the polyester and 100 to 150 for the PE
4. Filament	Multi-filament 36 or higher for the polyester and Monofilament for the PE
5. Mesh size	25 holes/cm2 (156 holes/inch2)
6. Weight ISO3801	30 to 40 g/m2 for polyester and Min 38 g/m2 for PE depending of denier.
7. Shrinkage ISO5077	5% maximum.
8. Bursting strength ISO 1393 8	250 kPa minimum for polyester and 320 kPa minimum for PE
9. Bursting strength after exposure to UV and moisturizing (climatic simulation) ISO 1393 8 Exposure in a climatic chamber under ISO 4892-2, type A, 360 hours, followed by bursting test under ISO 13938	30% maximum strength-loss on minimum required value and 50% maximum strength-loss on original value of the same product. Number of test pieces: 3 test pieces
10. Treatment	Long lasting insecticide: WHOPES recommended
11. Concentration of insecticide	WHOPES recommended
12. Target level of concentration	WHOPES approved
13. Color	White

PART 2: GENERAL POINTS FOR THE FINISHED PRODUCT

2.1 Performances

The final product must be able to withstand 75km/h wind, to be strongly attached to the ground and tensioned without any damages.
When closed, the tent must give a good protection against dust, wind, rain, snow, insects and small crawling fauna.

Minimum roof load to be 300N/m² under ISO8937 (snow load for camping tent).

2.2 Seams and Stitching

All seams subject to possible tension are double lock stitched and water proofed. Stitching produce strong, long lasting, neat and professional looking seams. The stitch count as well as UV and rot-proof sewing threads are appropriate and adapted to each fabric. It allows for strong waterproof seams with at least the same life span as the tent.
The seams are always oriented in order to let the rain runs freely, to avoid retaining water lines or water pockets.
Wherever possible the color of the sewing thread is adapted to the fabric color.

2.3 Ropes, webbing bands, toggles, loops, reinforcement nettings, and all other accessories.

All ropes and webbing bands are heat cut. All ropes are knotted to the tent from the factory. All above mentioned items are rot-proof and UV-proof at least as much as the tent canvas which they are sewn to. No webbing or rope is sewn through a stitch going from outside the tent to inside the tent to avoid water penetration by capillarity, or are made of waterproof materials. Laces or loops can also be made of the same canvas as the tent roof/wall for the outer tent loops, and of the same canvas they are sewn to for the inner tent loops.

2.4 Zip fasteners

All the zip fasteners conform to a resistance of 700N lateral traction under ISO5912.

2.5 Eyelets

All metal eyelets are rustproof and correctly placed, reinforced with a fabric patch and of a minimum 10mm inner diameter.

2.6 Metal rings

All metal rings are rustproof galvanized and closed by welding.

2.7 Dimensional Tolerance

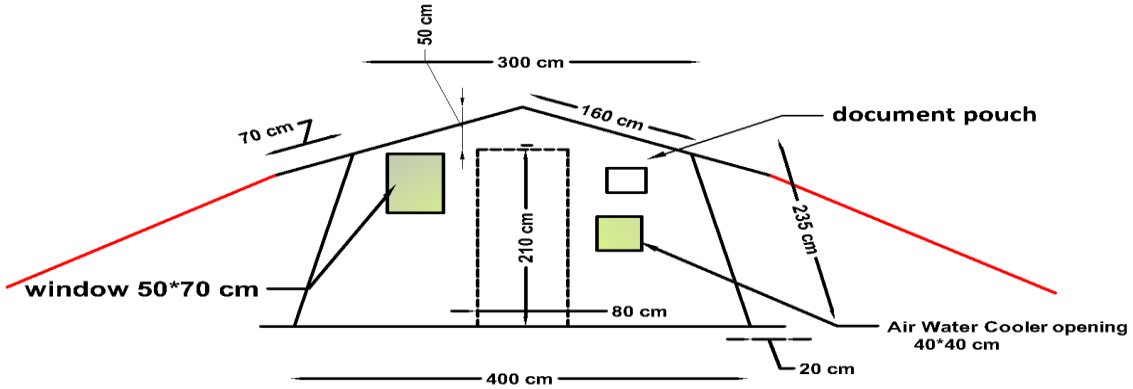
Unless otherwise specified, a tolerance of maximum +/- 3% is accepted on all dimensions.

2.8 Long storage

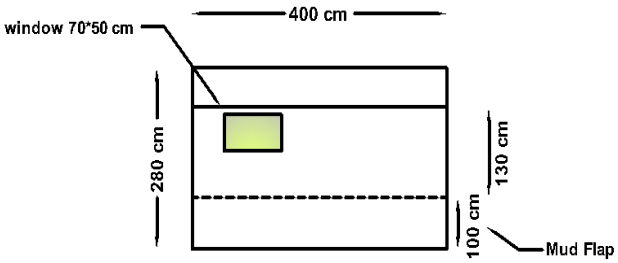
The tent is treated and packed in such a way that the tent can be stored up to minimum 5 years in proper storage conditions without any damage or performance reduction. Store elevated from the ground (on pallets and pallet racks) in a dry, clean and ventilated warehouse.

The tent must be manufactured and packed in clean and appropriate conditions to avoid contamination from soil dust and other contaminants.

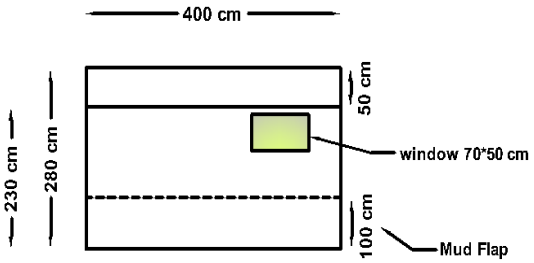
PART 3: MAKE-UP OF OUTER TENT



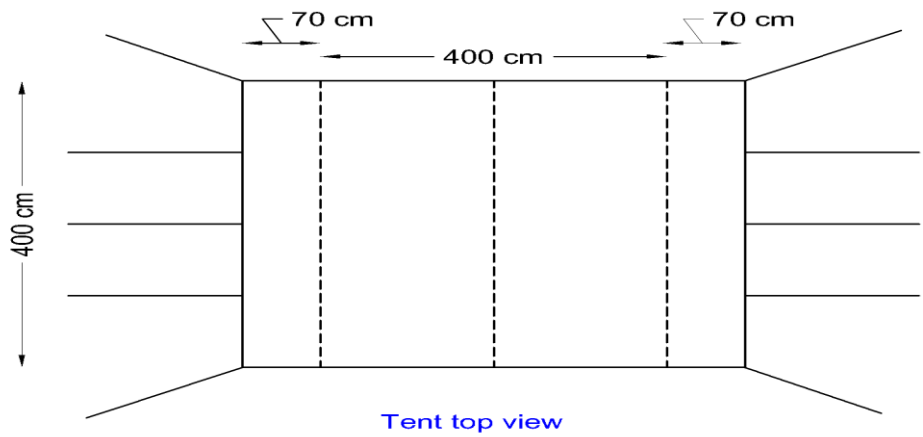
Tent front view



Tent left side view



Tent right side view



Tent top view

3.1 General Description of Outer tent:

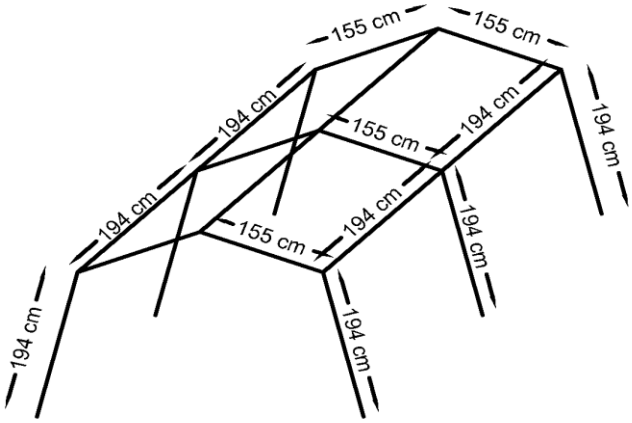
The outer tent is made of several cloth sections which form the general shape of the tent. The seams run from the ridge down to the roof edges, perpendicular to the ridge line. The outer tent is supported by 6 upright poles + 1 ridge beam and 5 guy ropes on each side, the attachment points of each guy rope are reinforced.

3.2 Dimensions / erecting system:

Width: 4m
Length: 4m

The outer tent is placed on the frame and maintained in position to the frame by using strings, Velcro straps and webbing bands with hooks.

Note: the dimension in picture is real pipe dimensions, For the canvas dimension the adapter fittings space length between pipes should take in consideration.



Tent structure

3.3 Reinforcements:

The 10 roof guying points are made of 5mm wide polyester straps, sewn to the fabric in extension of the roof. On the 4-corner guying points an additional layer of PVC coated canvas is added on the inside

The entire length of the ridge is reinforced on the inside with a 150mm strap of same fabric as the roof. the attachment sleeves for the ridge pipe are sewn to this reinforcement.

3.4 Attachment System (guy lines):

The outer tent is anchored to the ground using 10 guy lines which are attached to 10 metal pegs.

Each guying point on both sides presents a loop made of 50mm wide webbing. The length of the webbing allows, when folded double, the creation of a loop of minimum 30mm long, to be stitched to the tent with a strong Z sewing on minimum 50mm long.

The webbing loops are placed perpendicularly to the tent edge on both sides

10 metal rings are attached to the loops by the means of an elastic device. The ropes pass into the metal rings. When tensioning, the ropes are sliding in the metal rings.

At the other end, the ropes have a fixed knotted loop to place over the peg.

3.5 SIDE WINDOWS:

The outer tent has 4 windows;

2 windows with mosquito netting and rain flap running (UV resistant transparent PVC fabric) minimum thickness 0.5mm on both side of tent and inside dimension 60cm wide x 40cm high and the top edge of the window is placed 10cm below the roof of the tent. The window flap is 70cm wide 50cm high.

One window with mosquito netting and rain flap running (transparent PVC fabric) on front of tent and inside dimension 40cm wide x 60cm high. The window flap is 50cm wide 70cm high.

The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

Front window (transparent PVC fabric)

3.6 OUTER TENT DOORS:

Inside dimension: 80cm width x 210cm high

Door flaps are 90cm width x 210cm high

- Upper part 80cm width x 130 high is made of canvas.
- Lower part 80cm width x 80cm high is made of woven PE fabric.

The door is made of the same material as the outer tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

2 loops and 2 Plastic toggles or hooks are used to keep the flap open when rolled up.

The door has one side closable from inside and the other side closable from outside.

3.7 SIDE WALLS AND MUD FLAPS:

Total height of wall is 2.1m vertical plus 0.2 m on the ground.

The upper part (1.35m) of the side walls is made of Polyester Cotton fabric, lower part (1m) of PE fabric.

The outer tent is attached to the frame and side poles, with Velcro webbings 25mm wide stitched on the inner side of the outer tent, where the PE joins the poly-cotton 6 points and on the line between side walls and roof canvas 4 points, in (10 points at total).

The mud flaps are hooked by metal self-locking buckle to be attached to the base plates.

3.8 AIR COOLER OPENING:

Air cooler opening is placed at 0.5m from one corner, on front of the tent, between the corner of one side wall and the corner of tent door.

The lower edge of the opening is 80cm above the ground.

Inside dimensions: 30cm wide x 30cm high.

The opening flap is 40cm wide x 40cm high. The flap is stitched at the bottom at the lower edge of the air cooler opening. The flap is held by 25mm Velcro webbing which is placed along the entire vertical sides and upper end at a 25mm distance from opening.

3.9 Plastic for document pouch:

On the outside of each right-hand front wall there will be a clear plastic document sleeve. The material will be UV stabilized polyurethane transparent plastic with a minimum thickness of 0.15mm. The lower edge of the sleeve will be 30cm above the air cooler opening. The sleeve will have an opening on the left side with the other three sides sewn with two rows of stitching to the tent. The inside dimensions of the sleeve after sewing will be 20cm high and 30cm wide.

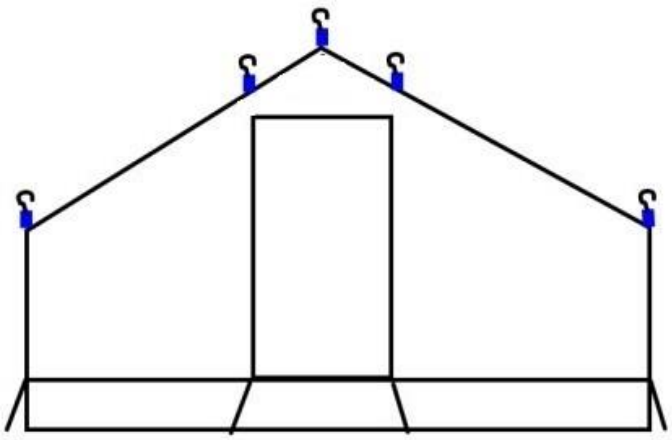
PART 4: MAKE-UP OF INNER TENT

4.1 General description:

The inner tent is similar to outer tent in shape and is hanging inside the outer tent structure. All dimensions are meant to allow a 10cm air gap between the outer tent and the inner tent.

The inner tent has one air cooler opening, 3 windows and 1 door.

At the ground level it is hooked to the outer tent D-rings with 6 elastic webbings and plastic hooks of 20mm width.



Inner Tent

4.2 Inner Tent Dimensions:

The inner tent, when hooked to the outer tent has a center height of 2.4m, a width of 3.8m, and a base length of 3.8m.

4.3 Inner Doors:

Door opening is 80cm wide and at 1.9m high.

The door panel (80cm wide) are placed in the center of the front wall.

The door is made of the same material as the inner tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

UV stabilized ropes or canvas laces with plastic toggles or hooks are used to keep the door opened when rolled up.

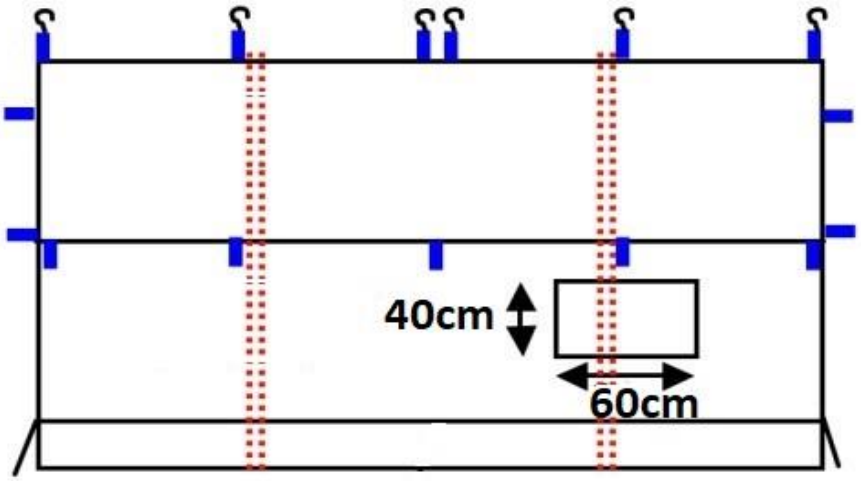
4.4 Inner Tent Suspension System:

The inner tent is suspended from the frame with 26 metal galvanized 4mm wire hooks mounted on webbing loops of 50mm wide. The total length of the loops including the metal hook is 100mm.

The hooks are positioned as per below drawing: 6 at the ridge, 5 on each side wall pipe and 4 on each gable pipe.

The side walls of the inner tent are hooked with plastic hooks mounted on webbing loops to the corresponding rings of the base plates of the frame.

These elastic webbing bands are stitched to the tent in the seam where the PE and fabric are joined.



4.5 Inner Tent Windows:

The inner tent has 1 door, 3 windows, one on each side wall and one at the front wall and one air cooler opening, all are the same size and same reinforcement of outer tent, corresponding to the outer tent windows and openings.

The flap made of same material as the inner tent is placed inside and opens upward. The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

4.6 Accessories inside the inner tent

To hang light weight properties, 2 pouch hangs above each window, webbing with hooks at the ridge.

PART 5: ACCESSORIES

5.1 Ropes/loops/ guy runners:

- 4 corner ropes, black, UV treated, 3m long each, 6mm diameter, a min tensile strength of 300 kg.
- 6 intermediate ropes, black, UV treated, 3m long each, 5mm diameter, a min tensile strength of 140 kg.
- All ropes to be passed in the rings of the tent from factory.
- All ropes to have a securely knotted loop at one end, to place over the peg.
- Hard wood or strong UV proof plastic guy runners, red color, already mounted on the ropes.
- The grain of the wood runners to run lengthwise of the runner.
- Size of the runners: 90 x 30 x 12mm, holes to be the same as the diameter of the rope.
- The ropes are passed in the runners in a way that makes the maximum blocking effect on the ropes

Guy runner

5.2 PEGS:

- 10 pegs of 30cm long, made of crossed iron 4sides of 25mm wide, 3mm thick, with an iron rod of 50mm long and 6mm diameter welded on the top. Pegs are galvanized iron.

PART 6: COVER PACKING

One tent with accessories of section A of this document can be packed into a master bundle. The outer tent and the inner tent are folded in a way to ensure that the mud flaps sheet protects the tent and accessories from dirt and moisture. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.

The metal pegs are packed in separate bag to avoid damaging tent canvas inside the master bundle. this bag is made of the same material as the master bundle. This bag has a closure system that ensures that the pegs will not fall out of the bag during transport and handling. Particular care should be taken when packing the pegs to assure they will not pierce the bag.

The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.

Annex B

TECHNICAL SPECIFICATIONS:

A-TENT COVER:

All canvas materials for the tent must meet the specifications below and ISO/DIS 5912.

The specifications of the tent are described below according to technical and performance requirements in five parts as follows:

1. MATERIALS
2. GENERAL POINTS FOR THE FINISHED PRODUCT
3. MAKE-UP OF THE OUTER TENT
4. MAKE-UP OF THE INNER TENT
5. ACCESSORIES
6. PACKING

PART 1: MATERIALS

All canvas materials for the tent must be in accordance with the specified characteristics and with ISO/DIS 5912, if not specified otherwise hereunder

1.1 OUTER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Poly-Cotton: (Polyester/Cotton blended fibers yarns). Cotton: 40% (±10), polyester: 60% (±10) = Polyester: 50% to 70%, with balance in cotton.
2. Specific weight (g/m2), ISO 3801	350 g/m2 ±15% in finished state.
3. Color	Natural white, not dyed.
4. Water vapor permeability, ISO17229	Minimum 2000g/m2/24h.
5. Tensile strength (N), ISO 13934-1 To apply on 10 test pieces of plain canvas. To apply on 5 test pieces with seams, cut from the tent, perpendicular to the seam.	Warp and Weft 850 N minimum. For plain canvas test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50 mm sample.
6. Tear resistance (N) - Started, ISO 9073-4	Warp and Weft 60 N minimum.
7. Water penetration resistance, ISO 811 Test pieces of plain canvas.	30 hPa minimum, with increasing speed at 100mm per minute.
8. Rain penetration resistance, ISO5912 Test piece is the complete outer tent only.	Resistance to rain as per point 4.2.11 applying procedure as point 5.6 during 2h on one end and 3h on one side.
9. Dimensional variation when soaking in water, ISO 7771	Maximum 3%.
10. Resistance to micro-organisms on tensile strength under, ISO 13934-1 after BS6085 (soil burial - 28 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 5 test pieces in warp 5 test pieces in weft.
11. Efficiency of water-repellent treatments after soaking in water. Same test as point 7 on samples soaked in water in point 9.	30 hPa minimum, with increasing speed at 100mm per minute.

12. Efficiency of fungicides product after soaking in water. Same test as point 10 on samples soaked in water in point 9.	Maximum 10% of additional loss as compared with the result from point 10. For each type of test: 5 test pieces in warp 5 test pieces in weft.
13. Tensile strength after exposure to UV and moisturizing (climatic simulation). Exposure in a climatic chamber under ISO4892-2, type A, 360 hours, followed by tensile test under ISO13934-1.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 3 test pieces in warp and 3 test pieces in weft
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.1 OUTER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Waterproof, UV resistant, flame and fire retardant, made from 540 gr/m² (±10 gr/m²) polyester canvas. 4 mm packthread to be sewn to the head of the outer covering layer (canvas) for stretching.
3. Color	Natural white, not dyed.
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.2 INNER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Polyester/Cotton blended fibers yarns. Cotton: 40%(±10), polyester: 60%(±10) = Polyester: 50% to 70%, balance cotton or Cotton 100%.
2. Specific weight (g/m2) ISO 3801	130 g/m2 ±10% in finished state.
3. Color	Dyed cream or beige color.
4. Water vapor permeability ISO 17229	Minimum 2000 g/m2/24h.
5. Tensile strength (N) ISO 13934-1	Warp and Weft 300 N minimum.
6. Tear resistance (N) - Started ISO 9073-4	Warp and Weft 20 N minimum.
7. Resistance to micro-organisms on tensile strength under ISO 13934-1 after BS6085 (soil burial - 14 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in warp, 5 test pieces in weft.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.2 INNER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Jute fabric
2. Specific weight (g/m2),	40gr/m²
3. Insulation Layer	Isolation material Specific weight 200 gr/m² (±10 gr/ m²) with single air bubble which are covered on both sides with aluminum foil.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.3 MUD FLAPS PE FABRIC

Title	Required minimum values
1.**Composition**	Woven high-density polyethylene black fibers fabric laminated on both sides with low density polyethylene coating.
2. Specific weight (g/m2) ISO 3801	180gr/m2±5%
3.a. Tensile strength (N) ISO 13934-1 To apply on 10 test pieces of plain PE fabric. To apply on 5 test pieces with seams, cut from the tent, perpendicularly to the seam, at the junction of PE and canvas.	Warp and Weft 650 N minimum. Elongation 15% to 25%. For plain PE fabric test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50mm sample.
3.b. Tensile strength (N) ISO 1421 To apply on 10 test pieces of plain canvas and 10 test pieces with seams of one side wall canvas, one side PE mud flap.	Warp 650N minimum Weft 650N minimum for each type of test: 5 test pieces in warp 5 test pieces in weft.
4.Tear resistance (N) - ISO 4674 (A2)	Warp 100N minimum Weft 100N minimum.
5. Resistance to micro-organisms	Insensitive to micro-organisms. Not to be tested.
6. Resistance to UV in percentage of tensile strength loss under ISO1421 after 1500 hours UV under ASTM G53/94 (UVB 313 nm peak)	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in weft 5 test pieces in warp
7. Color	White if made with IFRC/ICRC/UNHCR standard plastic sheeting. Or other colors except green/military green/brown and various khaki colors.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 6 (should pass the test).

1.4 MOSQUITO NET FOR DOORS, WINDOWS, INNER AND OUTER TENTS

Title	Required minimum values
1. Material ISO1833	Polyester 100%, or PE 100%
2. Fabric ISO8388	Warp knitted.
3. Denier	75/100 for the polyester and 100 to 150 for the PE
4. Filament	Multi-filament 36 or higher for the polyester and Monofilament for the PE
5. Mesh size	25 holes/cm2 (156 holes/inch2)
6. Weight ISO3801	30 to 40 g/m2 for polyester and Min 38 g/m2 for PE depending of denier.
7. Shrinkage ISO5077	5% maximum.
8. Bursting strength ISO 1393 8	250 kPa minimum for polyester and 320 kPa minimum for PE
9. Bursting strength after exposure to UV and moisturizing (climatic simulation) ISO 1393 8 Exposure in a climatic chamber under ISO 4892-2, type A, 360 hours, followed by bursting test under ISO 13938	30% maximum strength-loss on minimum required value and 50% maximum strength-loss on original value of the same product. Number of test pieces: 3 test pieces
10. Treatment	Long lasting insecticide: WHOPES recommended
11. Concentration of insecticide	WHOPES recommended
12. Target level of concentration	WHOPES approved

13. Color	White

PART 2: GENERAL POINTS FOR THE FINISHED PRODUCT

2.1 Performances

The final product must be able to withstand 75km/h wind, to be strongly attached to the ground and tensioned without any damages.
When closed, the tent must give a good protection against dust, wind, rain, snow, insects and small crawling fauna.

Minimum roof load to be 300N/m² under ISO8937 (snow load for camping tent).

2.2 Seams and Stitching

All seams subject to possible tension are double lock stitched and water proofed. Stitching produce strong, long lasting, neat and professional looking seams. The stitch count as well as UV and rot-proof sewing threads are appropriate and adapted to each fabric. It allows for strong waterproof seams with at least the same life span as the tent.
The seams are always oriented in order to let the rain runs freely, to avoid retaining water lines or water pockets.
Wherever possible the color of the sewing thread is adapted to the fabric color.

2.3 Ropes, webbing bands, toggles, loops, reinforcement nettings, and all other accessories.

All ropes and webbing bands are heat cut. All ropes are knotted to the tent from the factory. All above mentioned items are rot-proof and UV-proof at least as much as the tent canvas which they are sewn to. No webbing or rope is sewn through a stitch going from outside the tent to inside the tent to avoid water penetration by capillarity, or are made of waterproof materials. Laces or loops can also be made of the same canvas as the tent roof/wall for the outer tent loops, and of the same canvas they are sewn to for the inner tent loops.

2.4 Zip fasteners

All the zip fasteners conform to a resistance of 700N lateral traction under ISO5912.

2.5 Eyelets

All metal eyelets are rustproof and correctly placed, reinforced with a fabric patch and of a minimum 10mm inner diameter.

2.6 Metal rings

All metal rings are rustproof galvanized and closed by welding.

2.7 Dimensional Tolerance

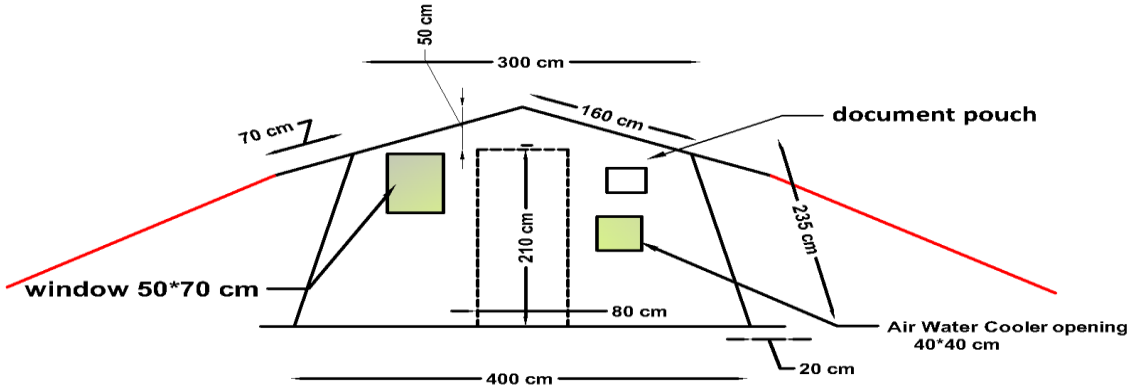
Unless otherwise specified, a tolerance of maximum +/- 3% is accepted on all dimensions.

2.8 Long storage

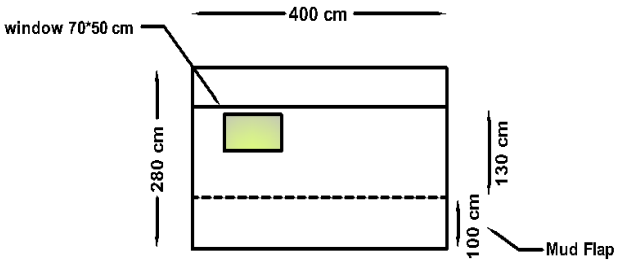
The tent is treated and packed in such a way that the tent can be stored up to minimum 5 years in proper storage conditions without any damage or performance reduction. Store elevated from the ground (on pallets and pallet racks) in a dry, clean and ventilated warehouse.

The tent must be manufactured and packed in clean and appropriate conditions to avoid contamination from soil dust and other contaminants.

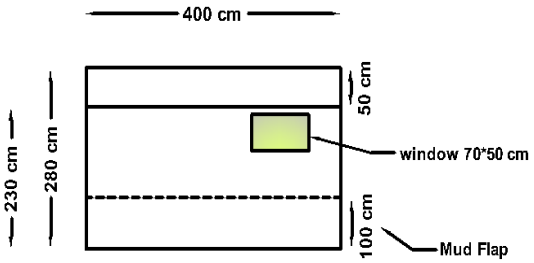
PART 3: MAKE-UP OF OUTER TENT



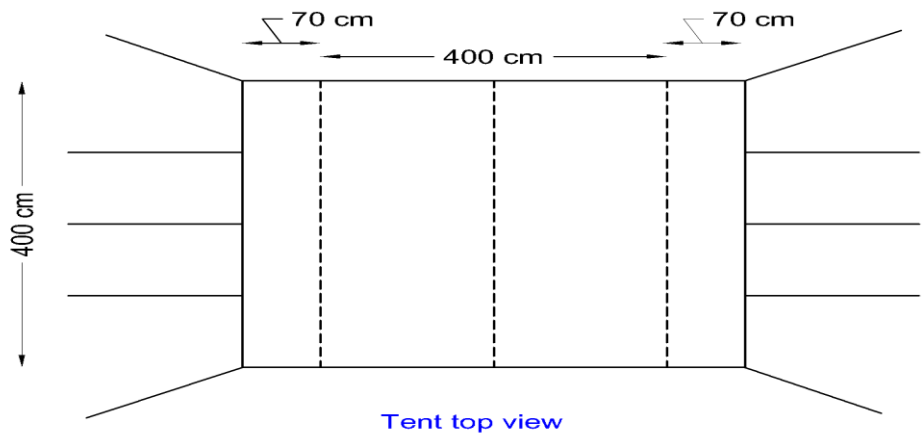
Tent front view



Tent left side view



Tent right side view



Tent top view

3.1 General Description of Outer tent:

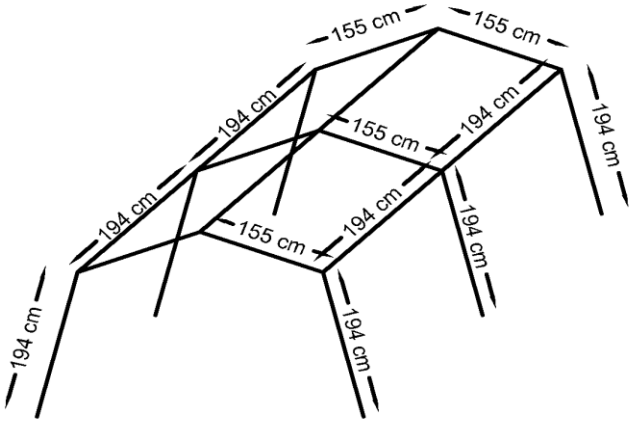
The outer tent is made of several cloth sections which form the general shape of the tent. The seams run from the ridge down to the roof edges, perpendicular to the ridge line. The outer tent is supported by 6 upright poles + 1 ridge beam and 5 guy ropes on each side, the attachment points of each guy rope are reinforced.

3.2 Dimensions / erecting system:

Width: 4m
Length: 4m

The outer tent is placed on the frame and maintained in position to the frame by using strings, Velcro straps and webbing bands with hooks.

Note: the dimension in picture is real pipe dimensions, For the canvas dimension the adapter fittings space length between pipes should take in consideration.



Tent structure

3.3 Reinforcements:

The 10 roof guying points are made of 5mm wide polyester straps, sewn to the fabric in extension of the roof. On the 4-corner guying points an additional layer of PVC coated canvas is added on the inside

The entire length of the ridge is reinforced on the inside with a 150mm strap of same fabric as the roof. the attachment sleeves for the ridge pipe are sewn to this reinforcement.

3.4 Attachment System (guy lines):

The outer tent is anchored to the ground using 10 guy lines which are attached to 10 metal pegs.

Each guying point on both sides presents a loop made of 50mm wide webbing. The length of the webbing allows, when folded double, the creation of a loop of minimum 30mm long, to be stitched to the tent with a strong Z sewing on minimum 50mm long.

The webbing loops are placed perpendicularly to the tent edge on both sides

10 metal rings are attached to the loops by the means of an elastic device. The ropes pass into the metal rings. When tensioning, the ropes are sliding in the metal rings.

At the other end, the ropes have a fixed knotted loop to place over the peg.

3.5 Side windows:

The outer tent has 4 windows;

2 windows with mosquito netting and rain flap running (UV resistant transparent PVC fabric) minimum thickness 0.5mm on both side of tent and inside dimension 60cm wide x 40cm high and the top edge of the window is placed 10cm below the roof of the tent. The window flap is 70cm wide 50cm high.

One window with mosquito netting and rain flap running (transparent PVC fabric) on front of tent and inside dimension 40cm wide x 60cm high. The window flap is 50cm wide 70cm high.

The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

Front window (transparent PVC fabric)

3.6 Outer Tent Doors:

Inside dimension: 80cm width x 210cm high

Door flaps are 90cm width x 210cm high

- Upper part 80cm width x 130 high is made of canvas.
- Lower part 80cm width x 80cm high is made of woven PE fabric.

The door is made of the same material as the outer tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

2 loops and 2 Plastic toggles or hooks are used to keep the flap open when rolled up.

The door has one side closable from inside and the other side closable from outside.

3.7 Side walls and mud flaps:

Total height of wall is 2.1m vertical plus 0.2 m on the ground.

The upper part (1.35m) of the side walls is made of Polyester Cotton fabric, lower part (1m) of PE fabric.

The outer tent is attached to the frame and side poles, with Velcro webbings 25mm wide stitched on the inner side of the outer tent, where the PE joins the poly-cotton 6 points and on the line between side walls and roof canvas 4 points, in (10 points at total).

The mud flaps are hooked by metal self-locking buckle to be attached to the base plates.

3.8 Air cooler opening:

Air cooler opening is placed at 0.5m from one corner, on front of the tent, between the corner of one side wall and the corner of tent door.

The lower edge of the opening is 80cm above the ground.

Inside dimensions: 30cm wide x 30cm high.

The opening flap is 40cm wide x 40cm high. The flap is stitched at the bottom at the lower edge of the air cooler opening. The flap is held by 25mm Velcro webbing which is placed along the entire vertical sides and upper end at a 25mm distance from opening.

3.9 Plastic for document pouch:

On the outside of each right-hand front wall there will be a clear plastic document sleeve. The material will be UV stabilized polyurethane transparent plastic with a minimum thickness of 0.15mm. The lower edge of the sleeve will be 30cm above the air cooler opening. The sleeve will have an opening on the left side with the other three sides sewn with two rows of stitching to the tent. The inside dimensions of the sleeve after sewing will be 20cm high and 30cm wide.

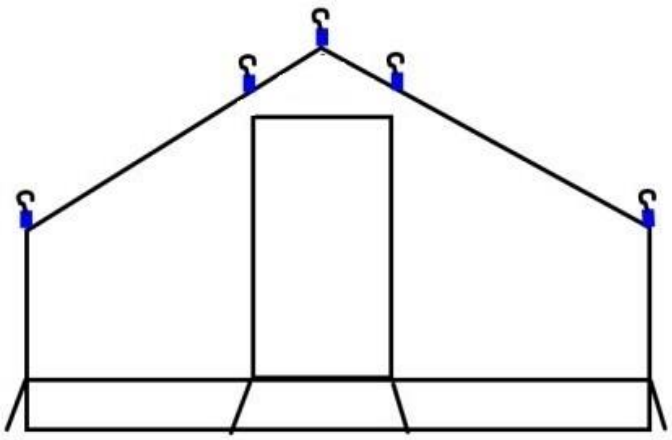
PART 4: MAKE-UP OF INNER TENT

4.1 General description:

The inner tent is similar to outer tent in shape and is hanging inside the outer tent structure. All dimensions are meant to allow a 10cm air gap between the outer tent and the inner tent.

The inner tent has one air cooler opening, 3 windows and 1 door.

At the ground level it is hooked to the outer tent D-rings with 6 elastic webbings and plastic hooks of 20mm width.



Inner Tent

4.2 Inner Tent Dimensions:

The inner tent, when hooked to the outer tent has a center height of 2.4m, a width of 3.8m, and a base length of 3.8m.

4.3 Inner Doors:

Door opening is 80cm wide and at 1.9m high.

The door panel (80cm wide) are placed in the center of the front wall.

The door is made of the same material as the inner tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

UV stabilized ropes or canvas laces with plastic toggles or hooks are used to keep the door opened when rolled up.

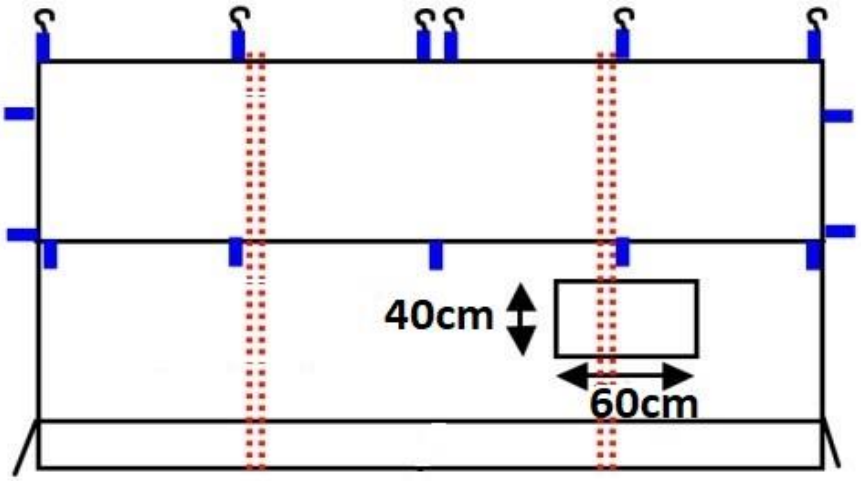
4.4 Inner Tent Suspension System:

The inner tent is suspended from the frame with 26 metal galvanized 4mm wire hooks mounted on webbing loops of 50mm wide. The total length of the loops including the metal hook is 100mm.

The hooks are positioned as per below drawing: 6 at the ridge, 5 on each side wall pipe and 4 on each gable pipe.

The side walls of the inner tent are hooked with plastic hooks mounted on webbing loops to the corresponding rings of the base plates of the frame.

These elastic webbing bands are stitched to the tent in the seam where the PE and fabric are joined.



4.5 Inner Tent Windows:

The inner tent has 1 door, 3 windows, one on each side wall and one at the front wall and one air cooler opening, all are the same size and same reinforcement of outer tent, corresponding to the outer tent windows and openings.

The flap made of same material as the inner tent is placed inside and opens upward. The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

4.6 Accessories inside the inner tent

To hang light weight properties, 2 pouch hangs above each window, webbing with hooks at the ridge.

PART 5: ACCESSORIES

5.1 Ropes/Loops/ Guy runners:

- 4 corner ropes, black, UV treated, 3m long each, 6mm diameter, a min tensile strength of 300 kg.
- 6 intermediate ropes, black, UV treated, 3m long each, 5mm diameter, a min tensile strength of 140 kg.
- All ropes to be passed in the rings of the tent from factory.
- All ropes to have a securely knotted loop at one end, to place over the peg.
- Hard wood or strong UV proof plastic guy runners, red color, already mounted on the ropes.
- The grain of the wood runners to run lengthwise of the runner.
- Size of the runners: 90 x 30 x 12mm, holes to be the same as the diameter of the rope.
- The ropes are passed in the runners in a way that makes the maximum blocking effect on the ropes

Guy runner

5.2 PEGS:

- 10 pegs of 30cm long, made of crossed iron 4sides of 25mm wide, 3mm thick, with an iron rod of 50mm long and 6mm diameter welded on the top. Pegs are galvanized iron.

PART 6: COVER PACKING

One tent with accessories of section A of this document can be packed into a master bundle. The outer tent and the inner tent are folded in a way to ensure that the mud flaps sheet protects the tent and accessories from dirt and moisture. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.

The metal pegs are packed in separate bag to avoid damaging tent canvas inside the master bundle. this bag is made of the same material as the master bundle. This bag has a closure system that ensures that the pegs will not fall out of the bag during transport and handling. Particular care should be taken when packing the pegs to assure they will not pierce the bag.

The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.

B-TENT STRUCTURE:

B.1-POLES AND FITTINGS:

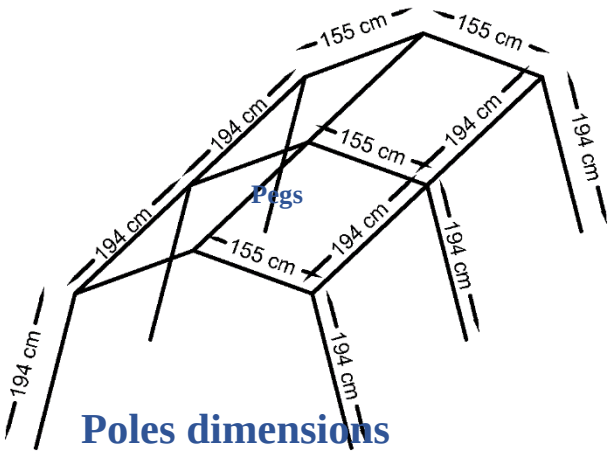
All frame pipes are made of 2mm thick galvanized steel pipes of 5cm diameter, the PVC male fittings of the cross pieces are to be minimum 10 cm long inside pipe.

-12 pipes of 5cm diameter 194cm length.

-6 pipes of 5cm diameter 155cm length.

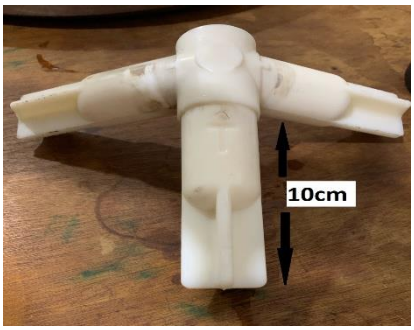
-3 PVC male adapter 4way fitting.

-6 PVC male adapter 3way fitting.



Poles dimensions

PVC male adapter 4way fittings



PVC male adapter 3way fittings

B.2-BASE PLATE:

-Each pipe has a base plate made of plastic and metal
-The base has a semi elapse shape dimensions of 10 x 8mm.
-Metal part of base has two rectangular slots to be connected to the outer and inner tents.

-The base plate is fixed to the ground by 30cm length galvanized iron peg diameter of 1.5cm.

B.3-STRUCTURE PACKING:

The structure accessories (Pipes, fittings, base plate and pegs) are packed into a master bundle, the metal pipes are bundled together by plastic straps to avoid sliding during transportation. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.
The pegs are bundled together by plastic straps and packed in separate bag to assure they will not pierce the master bundle; this bag is made of the same material as the master bundle and has a closure system that ensures that the accessories will not fall out of the bag during transport and handling, The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.

Annex C

A-TENT COVER:

All canvas materials for the tent must meet the specifications below and ISO/DIS 5912.

The specifications of the tent are described below according to technical and performance requirements in five parts as follows:

1. MATERIALS
2. GENERAL POINTS FOR THE FINISHED PRODUCT
3. MAKE-UP OF THE OUTER TENT
4. MAKE-UP OF THE INNER TENT
5. ACCESSORIES
6. PACKING

PART 1: MATERIALS

All canvas materials for the tent must be in accordance with the specified characteristics and with ISO/DIS 5912, if not specified otherwise hereunder

1.1 OUTER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Poly-Cotton: (Polyester/Cotton blended fibers yarns). Cotton: 40% (±10), polyester: 60% (±10) = Polyester: 50% to 70%, with balance in cotton.
2. Specific weight (g/m2), ISO 3801	350 g/m2 ±15% in finished state.
3. Color	Natural white, not dyed.
4. Water vapor permeability, ISO17229	Minimum 2000g/m2/24h.
5. Tensile strength (N), ISO 13934-1 To apply on 10 test pieces of plain canvas. To apply on 5 test pieces with seams, cut from the tent, perpendicular to the seam.	Warp and Weft 850 N minimum. For plain canvas test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50 mm sample.
6. Tear resistance (N) - Started, ISO 9073-4	Warp and Weft 60 N minimum.
7. Water penetration resistance, ISO 811 Test pieces of plain canvas.	30 hPa minimum, with increasing speed at 100mm per minute.
8. Rain penetration resistance, ISO5912 Test piece is the complete outer tent only.	Resistance to rain as per point 4.2.11 applying procedure as point 5.6 during 2h on one end and 3h on one side.
9. Dimensional variation when soaking in water, ISO 7771	Maximum 3%.
10. Resistance to micro-organisms on tensile strength under, ISO 13934-1 after BS6085 (soil burial - 28 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 5 test pieces in warp 5 test pieces in weft.
11. Efficiency of water-repellent treatments after soaking in water. Same test as point 7 on samples soaked in water in point 9.	30 hPa minimum, with increasing speed at 100mm per minute.
12. Efficiency of fungicides product after soaking in water. Same test as point 10 on samples soaked in water in point 9.	Maximum 10% of additional loss as compared with the result from point 10. For each type of test: 5 test pieces in warp 5 test pieces in weft.

13. Tensile strength after exposure to UV and moisturizing (climatic simulation). Exposure in a climatic chamber under ISO4892-2, type A, 360 hours, followed by tensile test under ISO13934-1.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 3 test pieces in warp and 3 test pieces in weft
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.1 OUTER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Waterproof, UV resistant, flame and fire retardant, made from 540 gr/m² (±10 gr/m²) polyester canvas. 4 mm packthread to be sewn to the head of the outer covering layer (canvas) for stretching.
3. Color	Natural white, not dyed.
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.2 INNER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Polyester/Cotton blended fibers yarns. Cotton: 40%(±10), polyester: 60%(±10) = Polyester: 50% to 70%, balance cotton or Cotton 100%.
2. Specific weight (g/m2) ISO 3801	130 g/m2 ±10% in finished state.
3. Color	Dyed cream or beige color.
4. Water vapor permeability ISO 17229	Minimum 2000 g/m2/24h.
5. Tensile strength (N) ISO 13934-1	Warp and Weft 300 N minimum.
6. Tear resistance (N) - Started ISO 9073-4	Warp and Weft 20 N minimum.
7. Resistance to micro-organisms on tensile strength under ISO 13934-1 after BS6085 (soil burial - 14 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in warp, 5 test pieces in weft.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.2 INNER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Jute fabric
2. Specific weight (g/m2),	40gr/m²
3. Insulation Layer	Isolation material Specific weight 200 gr/m² (±10 gr/ m²) with single air bubble which are covered on both sides with aluminum foil.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.3 MUD FLAPS PE FABRIC

Title	Required minimum values
1.**Composition**	Woven high-density polyethylene black fibers fabric laminated on both sides with low density polyethylene coating.
2. Specific weight (g/m2) ISO 3801	180gr/m2±5%
3.a. Tensile strength (N) ISO 13934-1 To apply on 10 test pieces of plain PE fabric. To apply on 5 test pieces with seams, cut from the tent, perpendicularly to the seam, at the junction of PE and canvas.	Warp and Weft 650 N minimum. Elongation 15% to 25%. For plain PE fabric test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50mm sample.
3.b. Tensile strength (N) ISO 1421 To apply on 10 test pieces of plain canvas and 10 test pieces with seams of one side wall canvas, one side PE mud flap.	Warp 650N minimum Weft 650N minimum for each type of test: 5 test pieces in warp 5 test pieces in weft.
4.Tear resistance (N) - ISO 4674 (A2)	Warp 100N minimum Weft 100N minimum.
5. Resistance to micro-organisms	Insensitive to micro-organisms. Not to be tested.
6. Resistance to UV in percentage of tensile strength loss under ISO1421 after 1500 hours UV under ASTM G53/94 (UVB 313 nm peak)	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in weft 5 test pieces in warp
7. Color	White if made with IFRC/ICRC/UNHCR standard plastic sheeting. Or other colors except green/military green/brown and various khaki colors.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 6 (should pass the test).

1.4 MOSQUITO NET FOR DOORS, WINDOWS, INNER AND OUTER TENTS

Title	Required minimum values
1. Material ISO1833	Polyester 100%, or PE 100%
2. Fabric ISO8388	Warp knitted.
3. Denier	75/100 for the polyester and 100 to 150 for the PE
4. Filament	Multi-filament 36 or higher for the polyester and Monofilament for the PE
5. Mesh size	25 holes/cm2 (156 holes/inch2)
6. Weight ISO3801	30 to 40 g/m2 for polyester and Min 38 g/m2 for PE depending of denier.
7. Shrinkage ISO5077	5% maximum.
8. Bursting strength ISO 1393 8	250 kPa minimum for polyester and 320 kPa minimum for PE
9. Bursting strength after exposure to UV and moisturizing (climatic simulation) ISO 1393 8 Exposure in a climatic chamber under ISO 4892-2, type A, 360 hours, followed by bursting test under ISO 13938	30% maximum strength-loss on minimum required value and 50% maximum strength-loss on original value of the same product. Number of test pieces: 3 test pieces
10. Treatment	Long lasting insecticide: WHOPES recommended
11. Concentration of insecticide	WHOPES recommended
12. Target level of concentration	WHOPES approved
13. Color	White

PART 2: GENERAL POINTS FOR THE FINISHED PRODUCT

2.1 PERFORMANCES

The final product must be able to withstand 75km/h wind, to be strongly attached to the ground and tensioned without any damages.
When closed, the tent must give a good protection against dust, wind, rain, snow, insects and small crawling fauna.

Minimum roof load to be 300N/m² under ISO8937 (snow load for camping tent).

2.2 SEAMS AND STITCHING

All seams subject to possible tension are double lock stitched and water proofed. Stitching produce strong, long lasting, neat and professional looking seams. The stitch count as well as UV and rot-proof sewing threads are appropriate and adapted to each fabric. It allows for strong waterproof seams with at least the same life span as the tent.
The seams are always oriented in order to let the rain runs freely, to avoid retaining water lines or water pockets.
Wherever possible the color of the sewing thread is adapted to the fabric color.

2.3 ROPES, WEBBING BANDS, TOGGLES, LOOPS, REINFORCEMENT NETTINGS, AND ALL OTHER ACCESSORIES.

All ropes and webbing bands are heat cut. All ropes are knotted to the tent from the factory. All above mentioned items are rot-proof and UV-proof at least as much as the tent canvas which they are sewn to. No webbing or rope is sewn through a stitch going from outside the tent to inside the tent to avoid water penetration by capillarity, or are made of waterproof materials. Laces or loops can also be made of the same canvas as the tent roof/wall for the outer tent loops, and of the same canvas they are sewn to for the inner tent loops.

2.4 ZIP FASTENERS

All the zip fasteners conform to a resistance of 700N lateral traction under ISO5912.

2.5 EYELETS

All metal eyelets are rustproof and correctly placed, reinforced with a fabric patch and of a minimum 10mm inner diameter.

2.6 METAL RINGS

All metal rings are rustproof galvanized and closed by welding.

2.7 DIMENSIONAL TOLERANCE

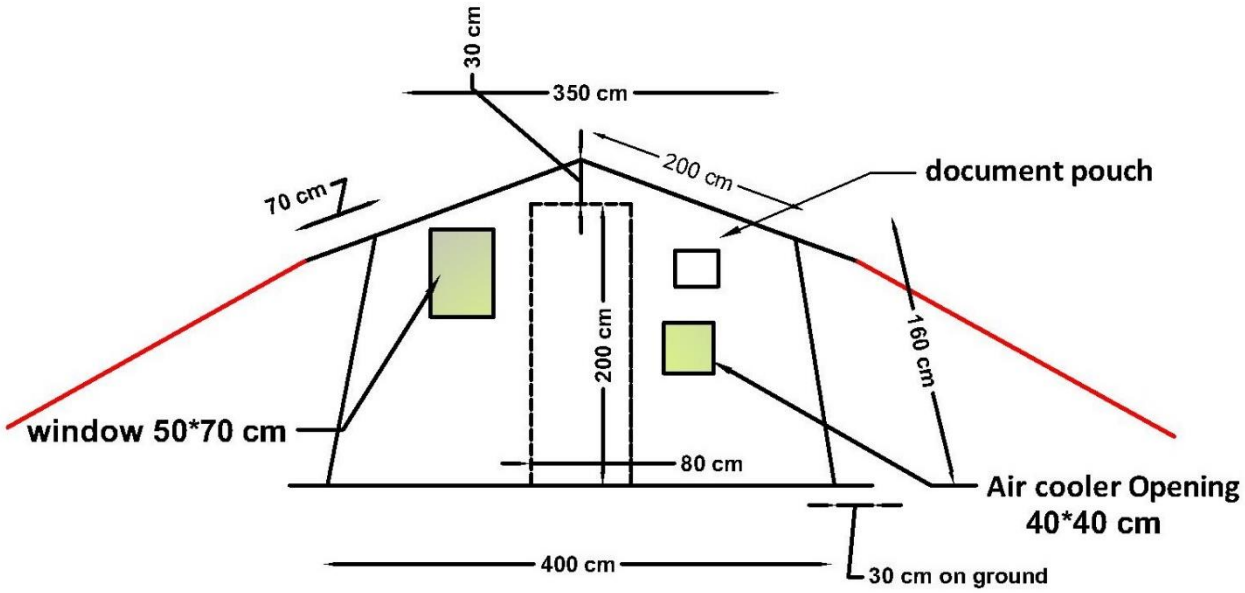
Unless otherwise specified, a tolerance of maximum +/- 3% is accepted on all dimensions.

2.8 LONG STORAGE

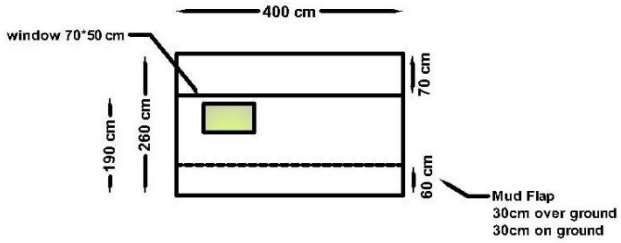
The tent is treated and packed in such a way that the tent can be stored up to minimum 5 years in proper storage conditions without any damage or performance reduction. Store elevated from the ground (on pallets and pallet racks) in a dry, clean and ventilated warehouse.

The tent must be manufactured and packed in clean and appropriate conditions to avoid contamination from soil dust and other contaminants.

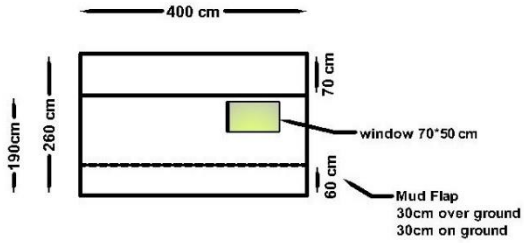
PART 3: MAKE-UP OF OUTER TENT



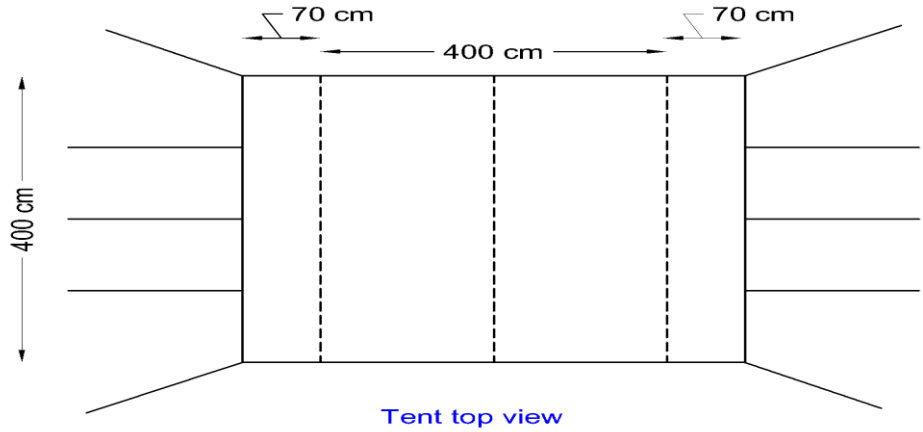
Tent front view



Tent left side view



Tent right side view



Tent top view

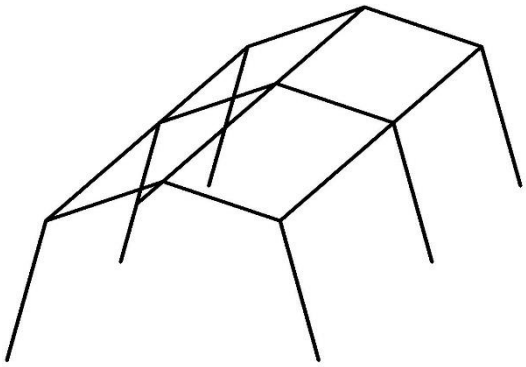
3.1 General Description of Outer tent:

The outer tent is made of several cloth sections which form the general shape of the tent. The seams run from the ridge down to the roof edges, The outer tent is supported by 6 upright poles + 1 ridge beam and 5 guy ropes on each side, the attachment points of each guy rope are reinforced.

3.2 Dimensions / erecting system:

Width: 4m
Length: 4m

The outer tent is placed on the frame and maintained in position to the frame by using strings, Velcro straps and webbing bands with hooks.



Tent structure

3.3 Reinforcements:

The 10 roof guying points are made of 5mm wide polyester straps, sewn to the fabric in extension of the roof. On the 4-corner guying points an additional layer of PVC coated canvas is added on the inside

The entire length of the ridge is reinforced on the inside with a 150mm strap of same fabric as the roof. the attachment sleeves for the ridge pipe are sewn to this reinforcement.

3.5 Side windows:

The outer tent has 4 windows;

2 windows with mosquito netting and rain flap running (UV resistant transparent PVC fabric) minimum thickness 0.5mm on both side of tent and inside dimension 60cm wide x 40cm high and the top edge of the window is placed 10cm below the roof of the tent. The window flap is 70cm wide 50cm high.

One window with mosquito netting and rain flap running (transparent PVC fabric) on front of tent and inside dimension 40cm wide x 60cm high. The window flap is 50cm wide 70cm high.

The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

Front window (transparent PVC fabric)

3.6 Outer Tent Doors:

Inside dimension: 80cm width x 200cm high

Door flaps are 90cm width x 200cm high

- Upper part 80cm width x 170 high is made of canvas.
- Lower part 80cm width x 30cm high is made of woven PE fabric.

The door is made of the same material as the outer tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

2 loops and 2 Plastic toggles or hooks are used to keep the flap open when rolled up.

The door has one side closable from inside and the other side closable from outside.

3.7 Side walls and mud flaps:

Total height of wall is 160 cm vertical plus 0.3 m on the ground.

The upper part of the side walls is made of Polyester Cotton fabric, lower part (60 cm) is made of PE fabric.

The outer tent is attached to the frame and side poles, with Velcro webbings 25mm wide stitched on the inner side of the outer tent, where the PE joins the poly-cotton 6 points and on the line between side walls and roof canvas 4 points, in (10 points at total).

The mud flaps are hooked by metal self-locking buckle to be attached to the base plates.

3.8 Air cooler opening:

Air cooler opening is placed at 0.5m from one corner, on front of the tent, between the corner of one side wall and the corner of tent door.

The lower edge of the opening is 80cm above the ground.

Inside dimensions: 30cm wide x 30cm high.

The opening flap is 40cm wide x 40cm high. The flap is stitched at the bottom at the lower edge of the air cooler opening. The flap is held by 25mm Velcro webbing which is placed along the entire vertical sides and upper end at a 25mm distance from opening.

3.9 Plastic for document pouch:

On the outside of each right-hand front wall there will be a clear plastic document sleeve. The material will be UV stabilized polyurethane transparent plastic with a minimum thickness of 0.15mm. The lower edge of the sleeve will be 30cm above the air cooler opening. The sleeve will have an opening on the left side with the other three sides sewn with two rows of stitching to the tent. The inside dimensions of the sleeve after sewing will be 20cm high and 30cm wide.

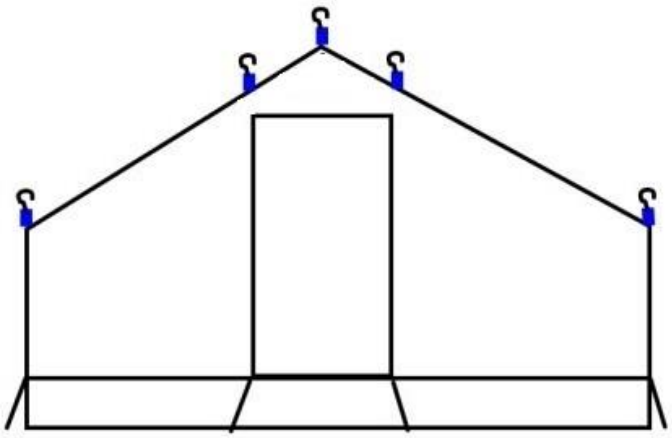
PART 4: MAKE-UP OF INNER TENT

4.1 General description:

The inner tent is similar to outer tent in shape and is hanging inside the outer tent structure. All dimensions are meant to allow a 10cm air gap between the outer tent and the inner tent.

The inner tent has one air cooler opening, 3 windows and 1 door.

At the ground level it is hooked to the outer tent D-rings with 6 elastic webbings and plastic hooks of 20mm width.



Inner Tent

Note: for point 1.2 option B ; the isolation layer is between inner and outer tent for roof only the area is 16m2.

4.2 Inner Tent Dimensions:

The inner tent, when hooked to the outer tent has a center height of 2.2m, a width of 3.8m, and a base length of 3.8m.

4.3 Inner Doors:

Door opening is 80cm wide and at 2m high.

The door panel (80cm wide) are placed in the center of the front wall.

The door is made of the same material as the inner tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

UV stabilized ropes or canvas laces with plastic toggles or hooks are used to keep the door opened when rolled up.

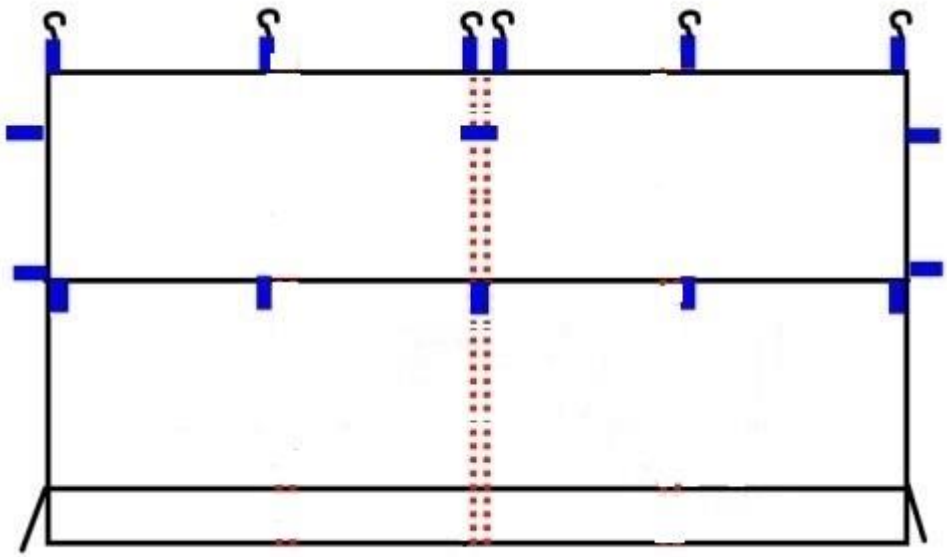
4.4 Inner Tent Suspension System:

The inner tent is suspended from the frame with 26 metal galvanized 4mm wire hooks mounted on webbing loops of 50mm wide. The total length of the loops including the metal hook is 100mm.

The hooks are positioned as per below drawing: 6 at the ridge, 5 on each side wall pipe and 6 on each gable pipe.

The side walls of the inner tent are hooked with plastic hooks mounted on webbing loops to the corresponding rings of the base plates of the frame.

These elastic webbing bands are stitched to the tent in the seam where the PE and fabric are joined.



4.5 Inner Tent Windows:

The inner tent has 1 door, 3 windows, one on each side wall and one at the front wall and one air cooler opening, all are the same size and same reinforcement of outer tent, corresponding to the outer tent windows and openings.

The flap made of same material as the inner tent is placed inside and opens upward. The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

4.6 Accessories inside the inner tent

To hang light weight properties, 2 pouch hangs above each window, webbing with hooks at the ridge.

PART 5: ACCESSORIES

5.1 Ropes/loops/ guy runners:

- 4 corner ropes, black, UV treated, 3m long each, 6mm diameter, a min tensile strength of 300 kg.
- 6 intermediate ropes, black, UV treated, 3m long each, 5mm diameter, a min tensile strength of 140 kg.
- All ropes to be passed in the rings of the tent from factory.
- All ropes to have a securely knotted loop at one end, to place over the peg.
- Hard wood or strong UV proof plastic guy runners, red color, already mounted on the ropes.
- The grain of the wood runners to run lengthwise of the runner.
- Size of the runners: 90 x 30 x 12mm, holes to be the same as the diameter of the rope.
- The ropes are passed in the runners in a way that makes the maximum blocking effect on the ropes

Guy runner

5.2 Pegs:

- 10 pegs of 30cm long, made of crossed iron 4sides of 25mm wide, 3mm thick, with an iron rod of 50mm long and 6mm diameter welded on the top. Pegs are galvanized iron.

PART 6: Cover Packing

One tent with accessories of section A of this document can be packed into a master bundle. The outer tent and the inner tent are folded in a way to ensure that the mud flaps sheet protects the tent and accessories from dirt and moisture. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.

The metal pegs are packed in separate bag to avoid damaging tent canvas inside the master bundle. this bag is made of the same material as the master bundle. This bag has a closure system that ensures that the pegs will not fall out of the bag during transport and handling. Particular care should be taken when packing the pegs to assure they will not pierce the bag.

The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.

Annex D

A-TENT COVER:

All canvas materials for the tent must meet the specifications below and ISO/DIS 5912.

The specifications of the tent are described below according to technical and performance requirements in five parts as follows:

1. MATERIALS
2. GENERAL POINTS FOR THE FINISHED PRODUCT
3. MAKE-UP OF THE OUTER TENT
4. MAKE-UP OF THE INNER TENT
5. ACCESSORIES
6. PACKING

PART 1: MATERIALS

All canvas materials for the tent must be in accordance with the specified characteristics and with ISO/DIS 5912, if not specified otherwise hereunder

1.1 OUTER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Poly-Cotton: (Polyester/Cotton blended fibers yarns). Cotton: 40% (±10), polyester: 60% (±10) = Polyester: 50% to 70%, with balance in cotton.
2. Specific weight (g/m2), ISO 3801	350 g/m2 ±15% in finished state.
3. Color	Natural white, not dyed.
4. Water vapor permeability, ISO17229	Minimum 2000g/m2/24h.
5. Tensile strength (N), ISO 13934-1 To apply on 10 test pieces of plain canvas. To apply on 5 test pieces with seams, cut from the tent, perpendicular to the seam.	Warp and Weft 850 N minimum. For plain canvas test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50 mm sample.
6. Tear resistance (N) - Started, ISO 9073-4	Warp and Weft 60 N minimum.
7. Water penetration resistance, ISO 811 Test pieces of plain canvas.	30 hPa minimum, with increasing speed at 100mm per minute.
8. Rain penetration resistance, ISO5912 Test piece is the complete outer tent only.	Resistance to rain as per point 4.2.11 applying procedure as point 5.6 during 2h on one end and 3h on one side.
9. Dimensional variation when soaking in water, ISO 7771	Maximum 3%.
10. Resistance to micro-organisms on tensile strength under, ISO 13934-1 after BS6085 (soil burial - 28 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 5 test pieces in warp 5 test pieces in weft.
11. Efficiency of water-repellent treatments after soaking in water. Same test as point 7 on samples soaked in water in point 9.	30 hPa minimum, with increasing speed at 100mm per minute.
12. Efficiency of fungicides product after soaking in water. Same test as point 10 on samples soaked in water in point 9.	Maximum 10% of additional loss as compared with the result from point 10. For each type of test: 5 test pieces in warp 5 test pieces in weft.

13. Tensile strength after exposure to UV and moisturizing (climatic simulation). Exposure in a climatic chamber under ISO4892-2, type A, 360 hours, followed by tensile test under ISO13934-1.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 3 test pieces in warp and 3 test pieces in weft
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.1 OUTER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Waterproof, UV resistant, flame and fire retardant, made from 540 gr/m² (±10 gr/m²) polyester canvas. 4 mm packthread to be sewn to the head of the outer covering layer (canvas) for stretching.
3. Color	Natural white, not dyed.
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.2 INNER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Polyester/Cotton blended fibers yarns. Cotton: 40%(±10), polyester: 60%(±10) = Polyester: 50% to 70%, balance cotton or Cotton 100%.
2. Specific weight (g/m2) ISO 3801	130 g/m2 ±10% in finished state.
3. Color	Dyed cream or beige color.
4. Water vapor permeability ISO 17229	Minimum 2000 g/m2/24h.
5. Tensile strength (N) ISO 13934-1	Warp and Weft 300 N minimum.
6. Tear resistance (N) - Started ISO 9073-4	Warp and Weft 20 N minimum.
7. Resistance to micro-organisms on tensile strength under ISO 13934-1 after BS6085 (soil burial - 14 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in warp, 5 test pieces in weft.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.2 INNER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Jute fabric
2. Specific weight (g/m2),	40gr/m²
3. Insulation Layer	Isolation material Specific weight 200 gr/m² (±10 gr/ m²) with single air bubble which are covered on both sides with aluminum foil.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.3 MUD FLAPS PE FABRIC

Title	Required minimum values
1.**Composition**	Woven high-density polyethylene black fibers fabric laminated on both sides with low density polyethylene coating.
2. Specific weight (g/m2) ISO 3801	180gr/m2±5%
3.a. Tensile strength (N) ISO 13934-1 To apply on 10 test pieces of plain PE fabric. To apply on 5 test pieces with seams, cut from the tent, perpendicularly to the seam, at the junction of PE and canvas.	Warp and Weft 650 N minimum. Elongation 15% to 25%. For plain PE fabric test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50mm sample.
3.b. Tensile strength (N) ISO 1421 To apply on 10 test pieces of plain canvas and 10 test pieces with seams of one side wall canvas, one side PE mud flap.	Warp 650N minimum Weft 650N minimum for each type of test: 5 test pieces in warp 5 test pieces in weft.
4.Tear resistance (N) - ISO 4674 (A2)	Warp 100N minimum Weft 100N minimum.
5. Resistance to micro-organisms	Insensitive to micro-organisms. Not to be tested.
6. Resistance to UV in percentage of tensile strength loss under ISO1421 after 1500 hours UV under ASTM G53/94 (UVB 313 nm peak)	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in weft 5 test pieces in warp
7. Color	White if made with IFRC/ICRC/UNHCR standard plastic sheeting. Or other colors except green/military green/brown and various khaki colors.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 6 (should pass the test).

1.4 MOSQUITO NET FOR DOORS, WINDOWS, INNER AND OUTER TENTS

Title	Required minimum values
1. Material ISO1833	Polyester 100%, or PE 100%
2. Fabric ISO8388	Warp knitted.
3. Denier	75/100 for the polyester and 100 to 150 for the PE
4. Filament	Multi-filament 36 or higher for the polyester and Monofilament for the PE
5. Mesh size	25 holes/cm2 (156 holes/inch2)
6. Weight ISO3801	30 to 40 g/m2 for polyester and Min 38 g/m2 for PE depending of denier.
7. Shrinkage ISO5077	5% maximum.
8. Bursting strength ISO 1393 8	250 kPa minimum for polyester and 320 kPa minimum for PE
9. Bursting strength after exposure to UV and moisturizing (climatic simulation) ISO 1393 8 Exposure in a climatic chamber under ISO 4892-2, type A, 360 hours, followed by bursting test under ISO 13938	30% maximum strength-loss on minimum required value and 50% maximum strength-loss on original value of the same product. Number of test pieces: 3 test pieces
10. Treatment	Long lasting insecticide: WHOPES recommended
11. Concentration of insecticide	WHOPES recommended
12. Target level of concentration	WHOPES approved
13. Color	White

PART 2: GENERAL POINTS FOR THE FINISHED PRODUCT

2.1 PERFORMANCES

The final product must be able to withstand 75km/h wind, to be strongly attached to the ground and tensioned without any damages.
When closed, the tent must give a good protection against dust, wind, rain, snow, insects and small crawling fauna.

Minimum roof load to be 300N/m² under ISO8937 (snow load for camping tent).

2.2 SEAMS AND STITCHING

All seams subject to possible tension are double lock stitched and water proofed. Stitching produce strong, long lasting, neat and professional looking seams. The stitch counts as well as UV and rot-proof sewing threads are appropriate and adapted to each fabric. It allows for strong waterproof seams with at least the same life span as the tent.
The seams are always oriented in order to let the rain runs freely, to avoid retaining water lines or water pockets.
Wherever possible the color of the sewing thread is adapted to the fabric color.

2.3 ROPES, WEBBING BANDS, TOGGLES, LOOPS, REINFORCEMENT NETTINGS, AND ALL OTHER ACCESSORIES.

All ropes and webbing bands are heat cut. All ropes are knotted to the tent from the factory. All above mentioned items are rot-proof and UV-proof at least as much as the tent canvas which they are sewn to. No webbing or rope is sewn through a stitch going from outside the tent to inside the tent to avoid water penetration by capillarity, or are made of waterproof materials. Laces or loops can also be made of the same canvas as the tent roof/wall for the outer tent loops, and of the same canvas they are sewn to for the inner tent loops.

2.4 ZIP FASTENERS

All the zip fasteners conform to a resistance of 700N lateral traction under ISO5912.

2.5 EYELETS

All metal eyelets are rustproof and correctly placed, reinforced with a fabric patch and of a minimum 10mm inner diameter.

2.6 METAL RINGS

All metal rings are rustproof galvanized and closed by welding.

2.7 DIMENSIONAL TOLERANCE

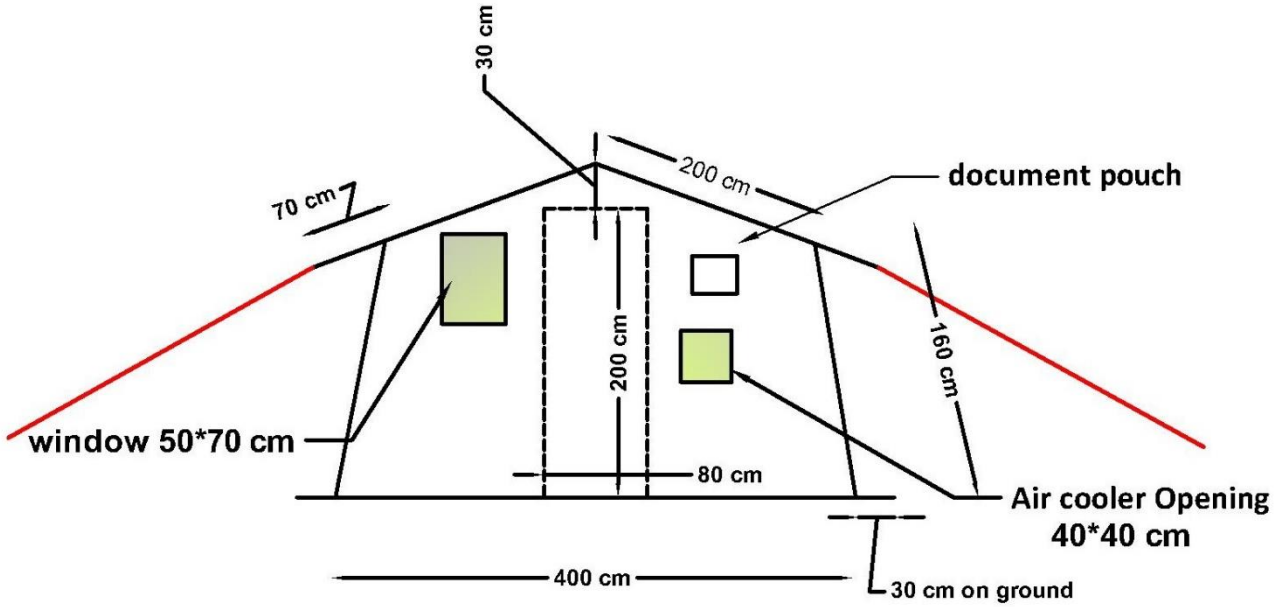
Unless otherwise specified, a tolerance of maximum +/- 3% is accepted on all dimensions.

2.8 LONG STORAGE

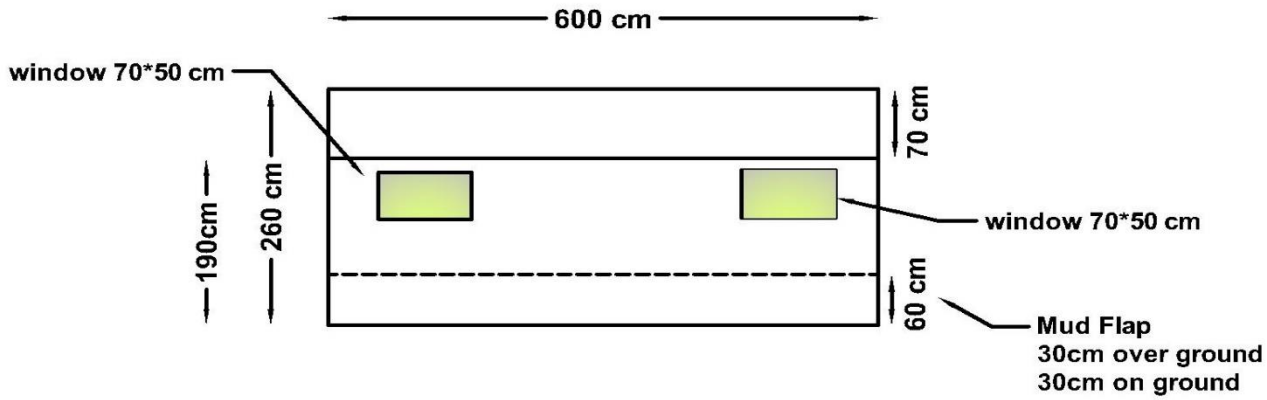
The tent is treated and packed in such a way that the tent can be stored up to minimum 5 years in proper storage conditions without any damage or performance reduction. Store elevated from the ground (on pallets and pallet racks) in a dry, clean and ventilated warehouse.

The tent must be manufactured and packed in clean and appropriate conditions to avoid contamination from soil dust and other contaminants.

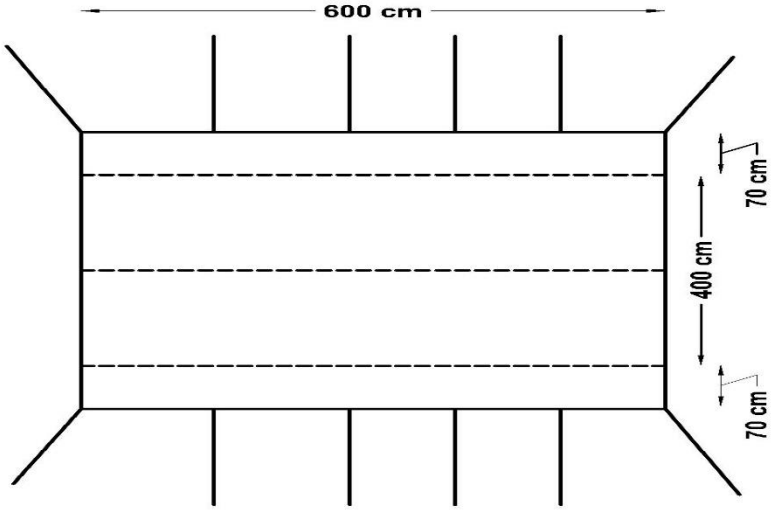
PART 3: MAKE-UP OF OUTER TENT



Tent front view



Tent right and left side view



Tent top view

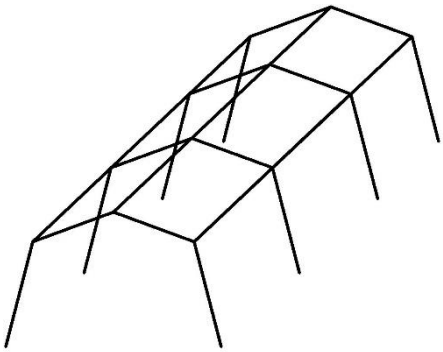
3.1 General Description of Outer tent:

The outer tent is made of several cloth sections which form the general shape of the tent. The seams run from the ridge down to the roof edges, The outer tent is supported by 8 upright poles + 1 ridge beam and 6 guy ropes on each side, the attachment points of each guy rope are reinforced.

3.2 Dimensions / erecting system:

Width: 4m
Length: 6m

The outer tent is placed on the frame and maintained in position to the frame by using strings, Velcro straps and webbing bands with hooks.



Tent structure

3.3 Reinforcements:

The 12 roof guying points are made of 5mm wide polyester straps, sewn to the fabric in extension of the roof. On the 4-corner guying points an additional layer of PVC coated canvas is added on the inside

The entire length of the ridge is reinforced on the inside with a 150mm strap of same fabric as the roof. the attachment sleeves for the ridge pipe are sewn to this reinforcement.

3.5 Side windows:

The outer tent has 6 windows;

4 windows with mosquito netting and rain flap running (UV resistant transparent PVC fabric) minimum thickness 0.5mm on both side of tent and inside dimension 60cm wide x 40cm high and the top edge of the window is placed 10cm below the roof of the tent. The window flap is 70cm wide 50cm high.

One window with mosquito netting and rain flap running (transparent PVC fabric) on front of tent and inside dimension 40cm wide x 60cm high. The window flap is 50cm wide 70cm high.

The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

Front window (transparent PVC fabric)

3.6 Outer Tent Doors:

Inside dimension: 80cm width x 200cm high

Door flaps are 90cm width x 200cm high

- Upper part 80cm width x 170 high is made of canvas.
- Lower part 80cm width x 30cm high is made of woven PE fabric.

The door is made of the same material as the outer tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

2 loops and 2 Plastic toggles or hooks are used to keep the flap open when rolled up.

The door has one side closable from inside and the other side closable from outside.

3.7 Side walls and mud flaps:

Total height of wall is 160 cm vertical plus 0.3 m mud flaps on the ground.

The upper part of the side walls is made of Polyester Cotton fabric, lower part (60 cm) is made of PE fabric.

The outer tent is attached to the frame and side poles, with Velcro webbings 25mm wide stitched on the inner side of the outer tent, where the PE joins the poly-cotton 8 points and on the line between side walls and roof canvas 6 points, in (14 points at total).

The mud flaps are hooked by metal self-locking buckle to be attached to the base plates.

3.8 Air cooler opening:

Air cooler opening is placed at 0.5m from one corner, on front of the tent, between the corner of one side wall and the corner of tent door.

The lower edge of the opening is 80cm above the ground.

Inside dimensions: 30cm wide x 30cm high.

The opening flap is 40cm wide x 40cm high. The flap is stitched at the bottom at the lower edge of the air cooler opening. The flap is held by 25mm Velcro webbing which is placed along the entire vertical sides and upper end at a 25mm distance from opening.

3.9 Plastic for document pouch:

On the outside of each right-hand front wall there will be a clear plastic document sleeve. The material will be UV stabilized polyurethane transparent plastic with a minimum thickness of 0.15mm. The lower edge of the sleeve will be 30cm above the air cooler opening. The sleeve will have an opening on the left side with the other three sides sewn with two rows of stitching to the tent. The inside dimensions of the sleeve after sewing will be 20cm high and 30cm wide.

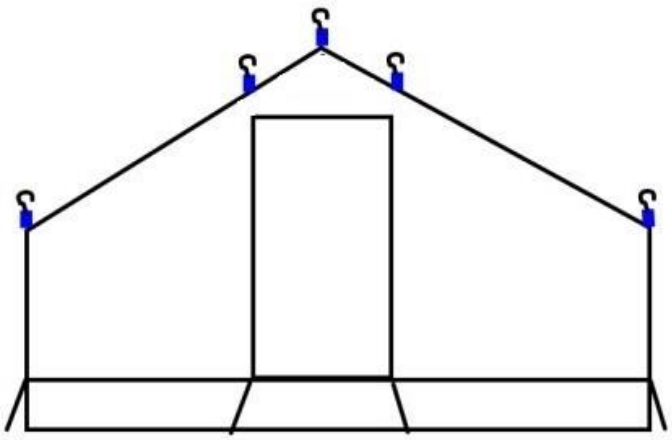
PART 4: MAKE-UP OF INNER TENT

4.1 General description:

The inner tent is similar to outer tent in shape and is hanging inside the outer tent structure. All dimensions are meant to allow a 10cm air gap between the outer tent and the inner tent.

The inner tent has one air cooler opening, 5 windows and 1 door.

At the ground level it is hooked to the outer tent D-rings with 8 elastic webbings and plastic hooks of 20mm width.



Inner Tent

Note: for point 1.2 option B ; the isolation layer is between inner and outer tent for roof only the area is 24m2.

4.2 Inner Tent Dimensions:

The inner tent, when hooked to the outer tent has a center height of 2.2m, a width of 3.8m, and a base length of 5.8m.

4.3 Inner Doors:

Door opening is 80cm wide and at 2m high.

The door panel (80cm wide) are placed in the center of the front wall.

The door is made of the same material as the inner tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

UV stabilized ropes or canvas laces with plastic toggles or hooks are used to keep the door opened when rolled up.

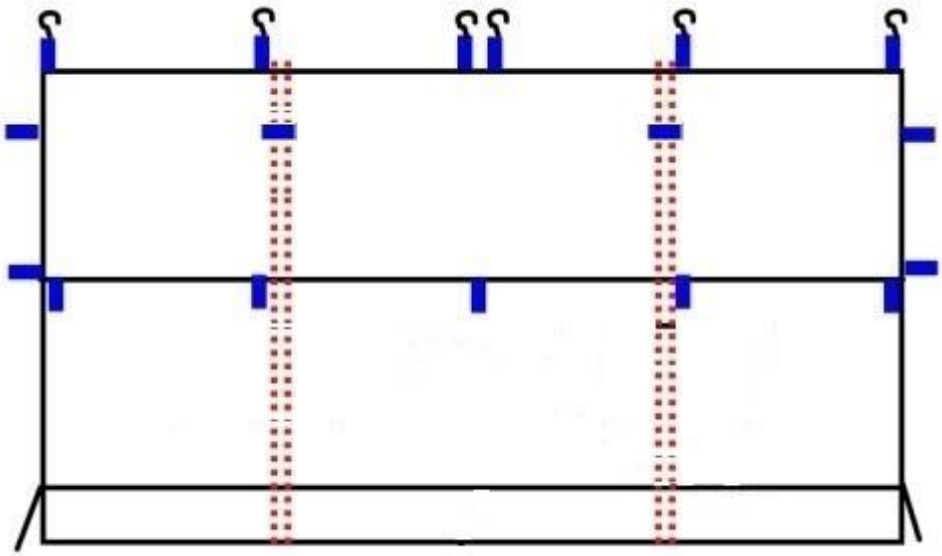
4.4 Inner Tent Suspension System:

The inner tent is suspended from the frame with 28 metal galvanized 4mm wire hooks mounted on webbing loops of 50mm wide. The total length of the loops including the metal hook is 100mm.

The hooks are positioned as per below drawing: 6 at the ridge, 5 on each side wall pipe and 8 on each gable pipe.

The side walls of the inner tent are hooked with plastic hooks mounted on webbing loops to the corresponding rings of the base plates of the frame.

These elastic webbing bands are stitched to the tent in the seam where the PE and fabric are joined.



4.5 Inner Tent Windows:

The inner tent has 1 door, 6 windows, two on each side wall and one at the front wall and one air cooler opening, all are the same size and same reinforcement of outer tent, corresponding to the outer tent windows and openings.

The flap made of same material as the inner tent is placed inside and opens upward. The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

4.6 ACCESSORIES INSIDE THE INNER TENT

To hang light weight properties, 2 pouch hangs above each window, webbing with hooks at the ridge.

PART 5: ACCESSORIES

5.1 ROPES/LOOPS/ GUY RUNNERS:

- 4 corner ropes, black, UV treated, 3m long each, 6mm diameter, a min tensile strength of 300 kg.
- 8 intermediate ropes, black, UV treated, 3m long each, 5mm diameter, a min tensile strength of 140 kg.
- All ropes to be passed in the rings of the tent from factory.
- All ropes to have a securely knotted loop at one end, to place over the peg.
- Hard wood or strong UV proof plastic guy runners, red color, already mounted on the ropes.
- The grain of the wood runners to run lengthwise of the runner.
- Size of the runners: 90 x 30 x 12mm, holes to be the same as the diameter of the rope.
- The ropes are passed in the runners in a way that makes the maximum blocking effect on the ropes

Guy runner

5.2 PEGS:

- 12 pegs of 30cm long, made of crossed iron 4sides of 25mm wide, 3mm thick, with an iron rod of 50mm long and 6mm diameter welded on the top. Pegs are galvanized iron.

PART 6: COVER PACKING

One tent with accessories of section A of this document can be packed into a master bundle. The outer tent and the inner tent are folded in a way to ensure that the mud flaps sheet protects the tent and accessories from dirt and moisture. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.

The metal pegs are packed in separate bag to avoid damaging tent canvas inside the master bundle. this bag is made of the same material as the master bundle. This bag has a closure system that ensures that the pegs will not fall out of the bag during transport and handling. Particular care should be taken when packing the pegs to assure they will not pierce the bag.

The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.

Annex E

A-TENT COVER:

All canvas materials for the tent must meet the specifications below and ISO/DIS 5912.

The specifications of the tent are described below according to technical and performance requirements in five parts as follows:

1. MATERIALS
2. GENERAL POINTS FOR THE FINISHED PRODUCT
3. MAKE-UP OF THE OUTER TENT
4. MAKE-UP OF THE INNER TENT
5. ACCESSORIES
6. PACKING

PART 1: MATERIALS

All canvas materials for the tent must be in accordance with the specified characteristics and with ISO/DIS 5912, if not specified otherwise hereunder

1.1 OUTER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Poly-Cotton: (Polyester/Cotton blended fibers yarns). Cotton: 40% (±10), polyester: 60% (±10) = Polyester: 50% to 70%, with balance in cotton.
2. Specific weight (g/m2), ISO 3801	350 g/m2 ±15% in finished state.
3. Color	Natural white, not dyed.
4. Water vapor permeability, ISO17229	Minimum 2000g/m2/24h.
5. Tensile strength (N), ISO 13934-1 To apply on 10 test pieces of plain canvas. To apply on 5 test pieces with seams, cut from the tent, perpendicular to the seam.	Warp and Weft 850 N minimum. For plain canvas test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50 mm sample.
6. Tear resistance (N) - Started, ISO 9073-4	Warp and Weft 60 N minimum.
7. Water penetration resistance, ISO 811 Test pieces of plain canvas.	30 hPa minimum, with increasing speed at 100mm per minute.
8. Rain penetration resistance, ISO5912 Test piece is the complete outer tent only.	Resistance to rain as per point 4.2.11 applying procedure as point 5.6 during 2h on one end and 3h on one side.
9. Dimensional variation when soaking in water, ISO 7771	Maximum 3%.
10. Resistance to micro-organisms on tensile strength under, ISO 13934-1 after BS6085 (soil burial - 28 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 5 test pieces in warp 5 test pieces in weft.
11. Efficiency of water-repellent treatments after soaking in water. Same test as point 7 on samples soaked in water in point 9.	30 hPa minimum, with increasing speed at 100mm per minute.
12. Efficiency of fungicides product after soaking in water. Same test as point 10 on samples soaked in water in point 9.	Maximum 10% of additional loss as compared with the result from point 10. For each type of test: 5 test pieces in warp 5 test pieces in weft.

13. Tensile strength after exposure to UV and moisturizing (climatic simulation). Exposure in a climatic chamber under ISO4892-2, type A, 360 hours, followed by tensile test under ISO13934-1.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 3 test pieces in warp and 3 test pieces in weft
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.1 OUTER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Waterproof, UV resistant, flame and fire retardant, made from 540 gr/m² (±10 gr/m²) polyester canvas. 4 mm packthread to be sewn to the head of the outer covering layer (canvas) for stretching.
3. Color	Natural white, not dyed.
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.2 INNER TENT

Title	Required minimum values
Insulation Layer	Isolation material Specific weight 200 gr/m² (±10 gr/ m²) with single air bubble which are covered on both sides with aluminum foil.

Note: for point 1.2; the isolation layer is placed under the main outer tent 194m2.

1.3 MOSQUITO NET FOR DOORS, WINDOWS, INNER AND OUTER TENTS

Title	Required minimum values
1. Material ISO1833	Polyester 100%, or PE 100%
2. Fabric ISO8388	Warp knitted.
3. Denier	75/100 for the polyester and 100 to 150 for the PE
4. Filament	Multi-filament 36 or higher for the polyester and Monofilament for the PE
5. Mesh size	25 holes/cm2 (156 holes/inch2)
6. Weight ISO3801	30 to 40 g/m2 for polyester and Min 38 g/m2 for PE depending of denier.
7. Shrinkage ISO5077	5% maximum.
8. Bursting strength ISO 1393 8	250 kPa minimum for polyester and 320 kPa minimum for PE
9. Bursting strength after exposure to UV and moisturizing (climatic simulation) ISO 1393 8 Exposure in a climatic chamber under ISO 4892-2, type A, 360 hours, followed by bursting test under ISO 13938	30% maximum strength-loss on minimum required value and 50% maximum strength-loss on original value of the same product. Number of test pieces: 3 test pieces
10. Treatment	Long lasting insecticide: WHOPES recommended
11. Concentration of insecticide	WHOPES recommended
12. Target level of concentration	WHOPES approved
13. Color	White

PART 2: GENERAL POINTS FOR THE FINISHED PRODUCT

2.1 Performances

The final product must be able to withstand 75km/h wind, to be strongly attached to the ground and tensioned without any damages.
When closed, the tent must give a good protection against dust, wind, rain, snow, insects and small crawling fauna.

Minimum roof load to be 300N/m² under ISO8937 (snow load for camping tent).

2.2 Seams and Stitching

All seams subject to possible tension are double lock stitched and water proofed. Stitching produce strong, long lasting, neat and professional looking seams. The stitch counts as well as UV and rot-proof sewing threads are appropriate and adapted to each fabric. It allows for strong waterproof seams with at least the same life span as the tent.
The seams are always oriented in order to let the rain runs freely, to avoid retaining water lines or water pockets.
Wherever possible the color of the sewing thread is adapted to the fabric color.

2.3 Ropes, webbing bands, toggles, loops, reinforcement nettings, and all other accessories.

All ropes and webbing bands are heat cut. All ropes are knotted to the tent from the factory. All above mentioned items are rot-proof and UV-proof at least as much as the tent canvas which they are sewn to. No webbing or rope is sewn through a stitch going from outside the tent to inside the tent to avoid water penetration by capillarity, or are made of waterproof materials. Laces or loops can also be made of the same canvas as the tent roof/wall for the outer tent loops, and of the same canvas they are sewn to for the inner tent loops.

2.4 Zip fasteners

All the zip fasteners conform to a resistance of 700N lateral traction under ISO5912.

2.5 Eyelets

All metal eyelets are rustproof and correctly placed, reinforced with a fabric patch and of a minimum 10mm inner diameter.

2.6 Metal rings

All metal rings are rustproof galvanized and closed by welding.

2.7 Dimensional Tolerance

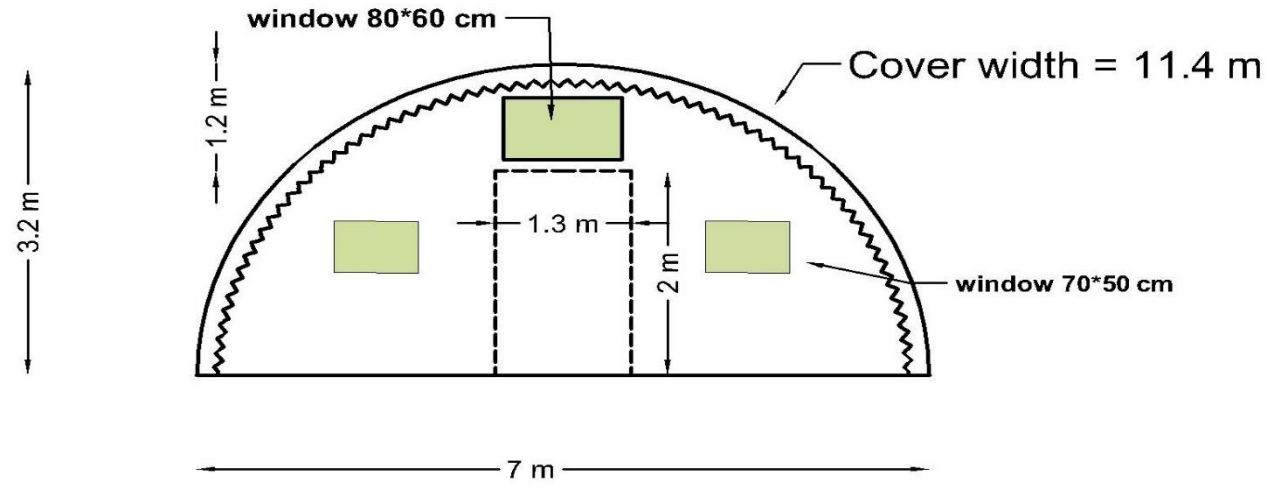
Unless otherwise specified, a tolerance of maximum +/- 3% is accepted on all dimensions.

2.8 Long storage

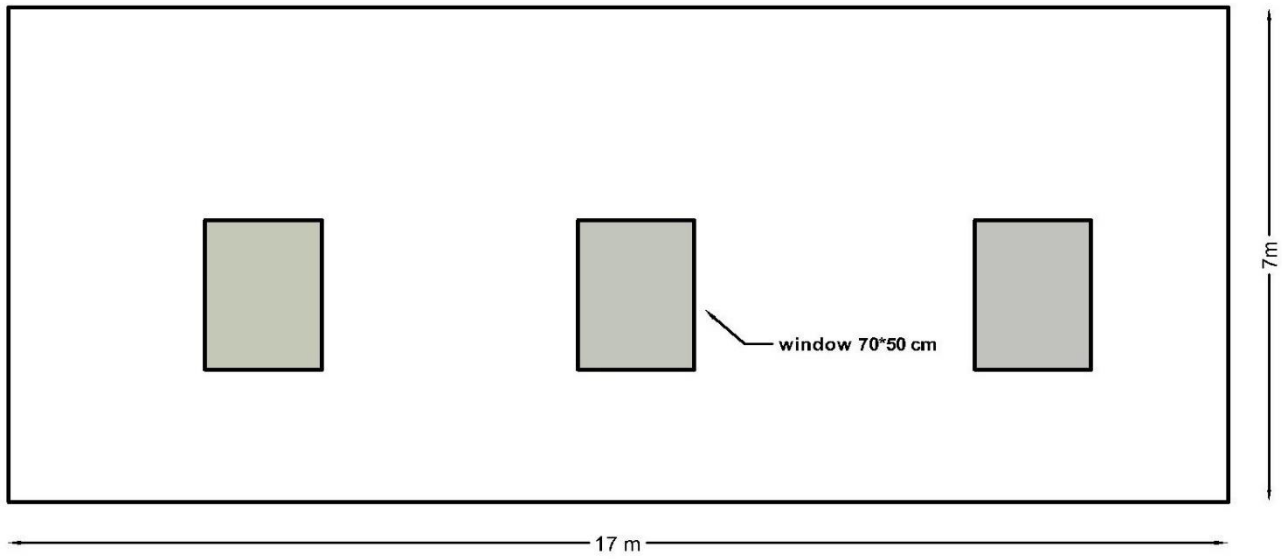
The tent is treated and packed in such a way that the tent can be stored up to minimum 5 years in proper storage conditions without any damage or performance reduction. Store elevated from the ground (on pallets and pallet racks) in a dry, clean and ventilated warehouse.

The tent must be manufactured and packed in clean and appropriate conditions to avoid contamination from soil dust and other contaminants.

PART 3: MAKE-UP OF OUTER TENT



Tent front and back view



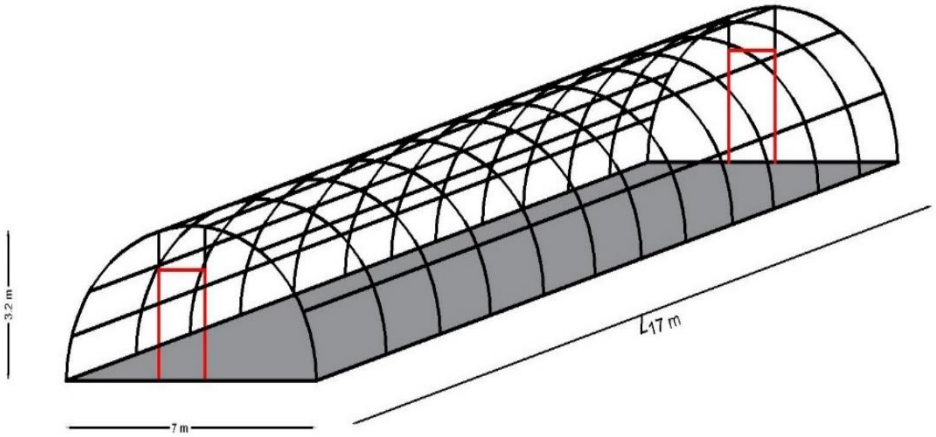
Tent right and left side view

3.1 General Description of Outer tent:

The tent is semi-circular or tunnel shaped with center height of 3.2 m width of 7m and length of 17 m.
The outer tent is constructed out of two parts, the main tent cover and two gable end covers which form the general shape of the tent. The main tent cover seams run from the ridge down to the ground horizontal poles, The outer tent is supported by several curved poles + several beams .

3.2 DIMENSIONS / ERECTING SYSTEM:

Width: 7m
Length: 17m



Tent structure

3.3 REINFORCEMENTS:

The two gable end covers are hooked to two gables end curved pipes by means of a lacing/loop system. The loops are made of 6mm diameter rope and several number of eyelets along the upper side of gable end cover 20cm between two eyelets. For each lace/loop system, a toggle or a hook is placed in order to attach the last loop.

The main tent cover has a 25 cm overlap run over two gable ends and reinforced by 4mm diameter rope which is dragged to the end of each main tent cover and the rope is fixed to the two pigs at each end.

Lacing loop system

3.5 SIDE WINDOWS:

The outer tent has 12 windows;

10 windows with mosquito netting and rain flap are made of the same outer tent canvas. inside dimension 60cm wide x 40cm and the bottom edge of side windows is placed 70cm above the ground. The window flap is 70cm high 50cm wide.

Two windows with mosquito netting and rain flap are made of the same outer tent canvas on front and back of tent and inside dimension 70cm wide x 50cm high. The window flap is 80cm wide 60cm high. These windows are over each door by 10 cm.

The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

3.6 Outer Tent Doors:

The tent has two doors one on front and one back of the tent, Inside dimension: 130cm width x 200cm high,

The door is made of the same material as the outer and fixed to the door frame by screws or bolts.

Tent door

PART 5: ACCESSORIES

5.1 Ropes/loops/ guy runners:

- All ropes, black, UV treated, 6mm diameter, a min tensile strength of 300 kg.
- All ropes to be passed in the rings of the tent from factory.
- Two side ropes to have a securely knotted loop at one end, to place over the peg.
- 4 Hard wood or strong UV proof plastic guy runners, red color, already mounted on the ropes.
- The grain of the wood runners to run lengthwise of the runner.
- Size of the runners: 90 x 30 x 12mm, holes to be the same as the diameter of the rope.

- The ropes are passed in the runners in a way that makes the maximum blocking effect on the ropes

Guy runner

5.2 PEGS:

- 4 pegs of 50cm long, made of crossed iron 4sides of 25mm wide, 3mm thick, with an iron rod of 50mm long and 6mm diameter welded on the top. Pegs are galvanized iron.

PART 6: COVER PACKING

One tent with accessories of this document can be packed into a master bundle. The outer tent and the partition sheets are folded in a way to ensure that the partition sheet protects the tent and accessories from dirt and moisture. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.

The metal pegs are packed in separate bag to avoid damaging tent canvas inside the master bundle. this bag is made of the same material as the master bundle. This bag has a closure system that ensures that the pegs will not fall out of the bag during transport and handling. Particular care should be taken when packing the pegs to assure they will not pierce the bag.

The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.

Annex F

A-TENT COVER:

All canvas materials for the tent must meet the specifications below and ISO/DIS 5912.

The specifications of the tent are described below according to technical and performance requirements in five parts as follows:

1. MATERIALS
2. GENERAL POINTS FOR THE FINISHED PRODUCT
3. MAKE-UP OF THE OUTER TENT
4. MAKE-UP OF THE INNER TENT
5. ACCESSORIES
6. PACKING

PART 1: MATERIALS

All canvas materials for the tent must be in accordance with the specified characteristics and with ISO/DIS 5912, if not specified otherwise hereunder

1.1 OUTER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Poly-Cotton: (Polyester/Cotton blended fibers yarns). Cotton: 40% (±10), polyester: 60% (±10) = Polyester: 50% to 70%, with balance in cotton.
2. Specific weight (g/m2), ISO 3801	350 g/m2 ±15% in finished state.
3. Color	Natural white, not dyed.
4. Water vapor permeability, ISO17229	Minimum 2000g/m2/24h.
5. Tensile strength (N), ISO 13934-1 To apply on 10 test pieces of plain canvas. To apply on 5 test pieces with seams, cut from the tent, perpendicular to the seam.	Warp and Weft 850 N minimum. For plain canvas test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50 mm sample.
6. Tear resistance (N) - Started, ISO 9073-4	Warp and Weft 60 N minimum.
7. Water penetration resistance, ISO 811 Test pieces of plain canvas.	30 hPa minimum, with increasing speed at 100mm per minute.
8. Rain penetration resistance, ISO5912 Test piece is the complete outer tent only.	Resistance to rain as per point 4.2.11 applying procedure as point 5.6 during 2h on one end and 3h on one side.
9. Dimensional variation when soaking in water, ISO 7771	Maximum 3%.
10. Resistance to micro-organisms on tensile strength under, ISO 13934-1 after BS6085 (soil burial - 28 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 5 test pieces in warp 5 test pieces in weft.
11. Efficiency of water-repellent treatments after soaking in water. Same test as point 7 on samples soaked in water in point 9.	30 hPa minimum, with increasing speed at 100mm per minute.
12. Efficiency of fungicides product after soaking in water. Same test as point 10 on samples soaked in water in point 9.	Maximum 10% of additional loss as compared with the result from point 10. For each type of test: 5 test pieces in warp 5 test pieces in weft.

13. Tensile strength after exposure to UV and moisturizing (climatic simulation). Exposure in a climatic chamber under ISO4892-2, type A, 360 hours, followed by tensile test under ISO13934-1.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. For each type of test: 3 test pieces in warp and 3 test pieces in weft
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.1 OUTER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Waterproof, UV resistant, flame and fire retardant, made from 540 gr/m² (±10 gr/m²) polyester canvas. 4 mm packthread to be sewn to the head of the outer covering layer (canvas) for stretching.
3. Color	Natural white, not dyed.
14. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test)

1.2 INNER TENT CANVAS (OPTION A)

Title	Required minimum values
1. Composition, ISO1833	Polyester/Cotton blended fibers yarns. Cotton: 40%(±10), polyester: 60%(±10) = Polyester: 50% to 70%, balance cotton or Cotton 100%.
2. Specific weight (g/m2) ISO 3801	130 g/m2 ±10% in finished state.
3. Color	Dyed cream or beige color.
4. Water vapor permeability ISO 17229	Minimum 2000 g/m2/24h.
5. Tensile strength (N) ISO 13934-1	Warp and Weft 300 N minimum.
6. Tear resistance (N) - Started ISO 9073-4	Warp and Weft 20 N minimum.
7. Resistance to micro-organisms on tensile strength under ISO 13934-1 after BS6085 (soil burial - 14 days). To apply on 10 test pieces of plain canvas and 10 test pieces with seams.	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in warp, 5 test pieces in weft.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.2 INNER TENT CANVAS (OPTION B)

Title	Required minimum values
1. Composition	Jute fabric
2. Specific weight (g/m2),	40gr/m²
3. Insulation Layer	Isolation material Specific weight 200 gr/m² (±10 gr/ m²) with single air bubble which are covered on both sides with aluminum foil.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 7 (should pass the test).

1.3 MUD FLAPS PE FABRIC

Title	Required minimum values
1.**Composition**	Woven high-density polyethylene black fibers fabric laminated on both sides with low density polyethylene coating.
2. Specific weight (g/m2) ISO 3801	180gr/m2±5%
3.a. Tensile strength (N) ISO 13934-1 To apply on 10 test pieces of plain PE fabric. To apply on 5 test pieces with seams, cut from the tent, perpendicularly to the seam, at the junction of PE and canvas.	Warp and Weft 650 N minimum. Elongation 15% to 25%. For plain PE fabric test: 5 test pieces in warp 5 test pieces in weft. On seams, the grab test is applied on 25mm width in the 50mm sample.
3.b. Tensile strength (N) ISO 1421 To apply on 10 test pieces of plain canvas and 10 test pieces with seams of one side wall canvas, one side PE mud flap.	Warp 650N minimum Weft 650N minimum for each type of test: 5 test pieces in warp 5 test pieces in weft.
4.Tear resistance (N) - ISO 4674 (A2)	Warp 100N minimum Weft 100N minimum.
5. Resistance to micro-organisms	Insensitive to micro-organisms. Not to be tested.
6. Resistance to UV in percentage of tensile strength loss under ISO1421 after 1500 hours UV under ASTM G53/94 (UVB 313 nm peak)	Maximum 30% of strength loss on minimum required value and maximum 50% strength loss on original value of the same product. 5 test pieces in weft 5 test pieces in warp
7. Color	White if made with IFRC/ICRC/UNHCR standard plastic sheeting. Or other colors except green/military green/brown and various khaki colors.
8. Fire resistance/retardancy	CPAI-84, 1980, Section 6 (should pass the test).

1.4 MOSQUITO NET FOR DOORS, WINDOWS, INNER AND OUTER TENTS

Title	Required minimum values
1. Material ISO1833	Polyester 100%, or PE 100%
2. Fabric ISO8388	Warp knitted.
3. Denier	75/100 for the polyester and 100 to 150 for the PE
4. Filament	Multi-filament 36 or higher for the polyester and Monofilament for the PE
5. Mesh size	25 holes/cm2 (156 holes/inch2)
6. Weight ISO3801	30 to 40 g/m2 for polyester and Min 38 g/m2 for PE depending of denier.
7. Shrinkage ISO5077	5% maximum.
8. Bursting strength ISO 1393 8	250 kPa minimum for polyester and 320 kPa minimum for PE
9. Bursting strength after exposure to UV and moisturizing (climatic simulation) ISO 1393 8 Exposure in a climatic chamber under ISO 4892-2, type A, 360 hours, followed by bursting test under ISO 13938	30% maximum strength-loss on minimum required value and 50% maximum strength-loss on original value of the same product. Number of test pieces: 3 test pieces
10. Treatment	Long lasting insecticide: WHOPES recommended
11. Concentration of insecticide	WHOPES recommended
12. Target level of concentration	WHOPES approved
13. Color	White

PART 2: GENERAL POINTS FOR THE FINISHED PRODUCT

2.1 PERFORMANCES

The final product must be able to withstand 75km/h wind, to be strongly attached to the ground and tensioned without any damages.
When closed, the tent must give a good protection against dust, wind, rain, snow, insects and small crawling fauna.

Minimum roof load to be 300N/m² under ISO8937 (snow load for camping tent).

2.2 SEAMS AND STITCHING

All seams subject to possible tension are double lock stitched and water proofed. Stitching produce strong, long lasting, neat and professional looking seams. The stitch count as well as UV and rot-proof sewing threads are appropriate and adapted to each fabric. It allows for strong waterproof seams with at least the same life span as the tent.
The seams are always oriented in order to let the rain runs freely, to avoid retaining water lines or water pockets.
Wherever possible the color of the sewing thread is adapted to the fabric color.

2.3 ROPES, WEBBING BANDS, TOGGLES, LOOPS, REINFORCEMENT NETTINGS, AND ALL OTHER ACCESSORIES.

All ropes and webbing bands are heat cut. All ropes are knotted to the tent from the factory. All above mentioned items are rot-proof and UV-proof at least as much as the tent canvas which they are sewn to. No webbing or rope is sewn through a stitch going from outside the tent to inside the tent to avoid water penetration by capillarity, or are made of waterproof materials. Laces or loops can also be made of the same canvas as the tent roof/wall for the outer tent loops, and of the same canvas they are sewn to for the inner tent loops.

2.4 ZIP FASTENERS

All the zip fasteners conform to a resistance of 700N lateral traction under ISO5912.

2.5 EYELETS

All metal eyelets are rustproof and correctly placed, reinforced with a fabric patch and of a minimum 10mm inner diameter.

2.6 METAL RINGS

All metal rings are rustproof galvanized and closed by welding.

2.7 DIMENSIONAL TOLERANCE

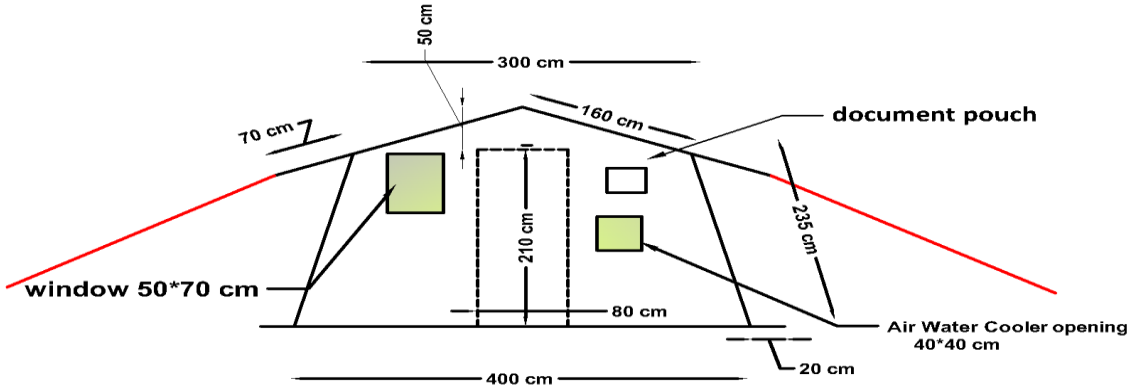
Unless otherwise specified, a tolerance of maximum +/- 3% is accepted on all dimensions.

2.8 LONG STORAGE

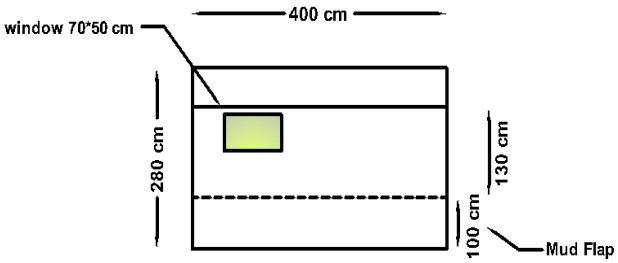
The tent is treated and packed in such a way that the tent can be stored up to minimum 5 years in proper storage conditions without any damage or performance reduction. Store elevated from the ground (on pallets and pallet racks) in a dry, clean and ventilated warehouse.

The tent must be manufactured and packed in clean and appropriate conditions to avoid contamination from soil dust and other contaminants.

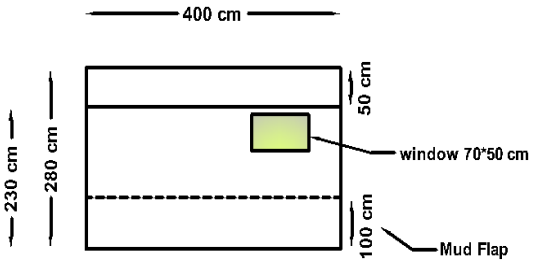
PART 3: MAKE-UP OF OUTER TENT



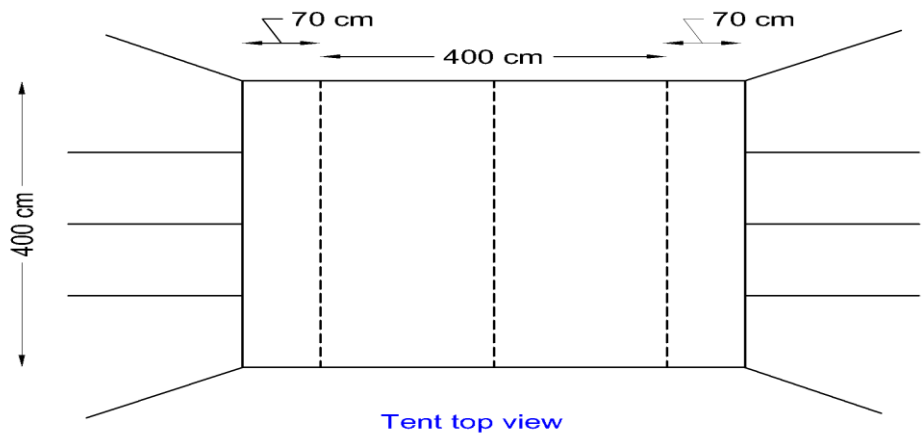
Tent front view



Tent left side view



Tent right side view



Tent top view

3.1 General Description of Outer tent:

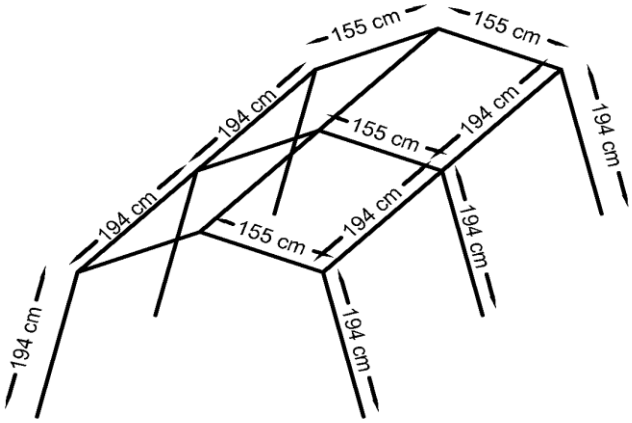
The outer tent is made of several cloth sections which form the general shape of the tent. The seams run from the ridge down to the roof edges, perpendicular to the ridge line. The outer tent is supported by 6 upright poles + 1 ridge beam and 5 guy ropes on each side, the attachment points of each guy rope are reinforced.

3.2 Dimensions / erecting system:

Width: 4m
Length: 4m

The outer tent is placed on the frame and maintained in position to the frame by using strings, Velcro straps and webbing bands with hooks.

Note: the dimension in picture is real pipe dimensions, For the canvas dimension the adapter fittings space length between pipes should take in consideration.



Tent structure

3.3 Reinforcements:

The 10 roof guying points are made of 5mm wide polyester straps, sewn to the fabric in extension of the roof. On the 4-corner guying points an additional layer of PVC coated canvas is added on the inside

The entire length of the ridge is reinforced on the inside with a 150mm strap of same fabric as the roof. the attachment sleeves for the ridge pipe are sewn to this reinforcement.

3.4 Attachment System (guy lines):

The outer tent is anchored to the ground using 10 guy lines which are attached to 10 metal pegs.

Each guying point on both sides presents a loop made of 50mm wide webbing. The length of the webbing allows, when folded double, the creation of a loop of minimum 30mm long, to be stitched to the tent with a strong Z sewing on minimum 50mm long.

The webbing loops are placed perpendicularly to the tent edge on both sides

10 metal rings are attached to the loops by the means of an elastic device. The ropes pass into the metal rings. When tensioning, the ropes are sliding in the metal rings.

At the other end, the ropes have a fixed knotted loop to place over the peg.

3.5 Side windows:

The outer tent has 4 windows;

2 windows with mosquito netting and rain flap running (UV resistant transparent PVC fabric) minimum thickness 0.5mm on both side of tent and inside dimension 60cm wide x 40cm high and the top edge of the window is placed 10cm below the roof of the tent. The window flap is 70cm wide 50cm high.

One window with mosquito netting and rain flap running (transparent PVC fabric) on front of tent and inside dimension 40cm wide x 60cm high. The window flap is 50cm wide 70cm high.

The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

Front window (transparent PVC fabric)

3.6 Outer Tent Doors:

Inside dimension: 80cm width x 210cm high

Door flaps are 90cm width x 210cm high

- Upper part 80cm width x 130 high is made of canvas.
- Lower part 80cm width x 80cm high is made of woven PE fabric.

The door is made of the same material as the outer tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

2 loops and 2 Plastic toggles or hooks are used to keep the flap open when rolled up.

The door has one side closable from inside and the other side closable from outside.

3.7 Side walls and mud flaps:

Total height of wall is 2.1m vertical plus 0.2 m on the ground.

The upper part (1.35m) of the side walls is made of Polyester Cotton fabric, lower part (1m) of PE fabric.

The outer tent is attached to the frame and side poles, with Velcro webbings 25mm wide stitched on the inner side of the outer tent, where the PE joins the poly-cotton 6 points and on the line between side walls and roof canvas 4 points, in (10 points at total).

The mud flaps are hooked by metal self-locking buckle to be attached to the base plates.

3.8 Air cooler opening:

Air cooler opening is placed at 0.5m from one corner, on front of the tent, between the corner of one side wall and the corner of tent door.

The lower edge of the opening is 80cm above the ground.

Inside dimensions: 30cm wide x 30cm high.

The opening flap is 40cm wide x 40cm high. The flap is stitched at the bottom at the lower edge of the air cooler opening. The flap is held by 25mm Velcro webbing which is placed along the entire vertical sides and upper end at a 25mm distance from opening.

3.9 Plastic for document pouch:

On the outside of each right-hand front wall there will be a clear plastic document sleeve. The material will be UV stabilized polyurethane transparent plastic with a minimum thickness of 0.15mm. The lower edge of the sleeve will be 30cm above the air cooler opening. The sleeve will have an opening on the left side with the other three sides sewn with two rows of stitching to the tent. The inside dimensions of the sleeve after sewing will be 20cm high and 30cm wide.

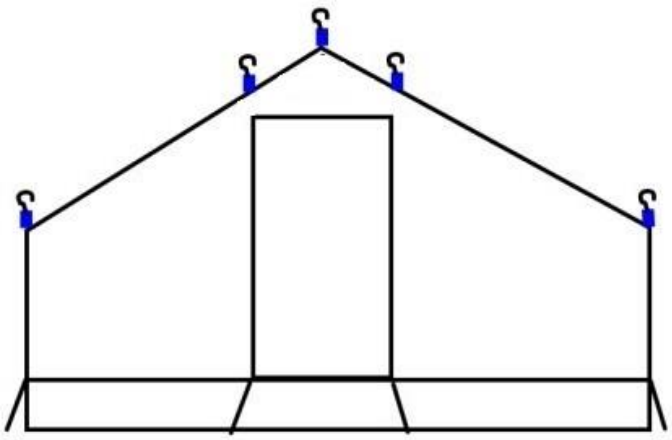
PART 4: MAKE-UP OF INNER TENT

4.1 General description:

The inner tent is similar to outer tent in shape and is hanging inside the outer tent structure. All dimensions are meant to allow a 10cm air gap between the outer tent and the inner tent.

The inner tent has one air cooler opening, 3 windows and 1 door.

At the ground level it is hooked to the outer tent D-rings with 6 elastic webbings and plastic hooks of 20mm width.



Inner Tent

4.2 Inner Tent Dimensions:

The inner tent, when hooked to the outer tent has a center height of 2.4m, a width of 3.8m, and a base length of 3.8m.

4.3 Inner Doors:

Door opening is 80cm wide and at 1.9m high.

The door panel (80cm wide) are placed in the center of the front wall.

The door is made of the same material as the inner tent and close with polyester n°10 coil zipper fasteners at the 2 vertical sides. The zipper fasteners can be opened from the inside and outside.

UV stabilized ropes or canvas laces with plastic toggles or hooks are used to keep the door opened when rolled up.

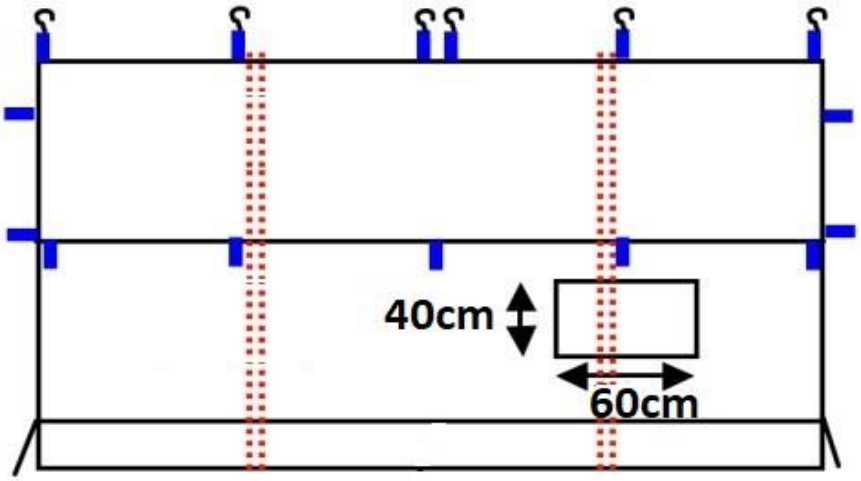
4.4 Inner Tent Suspension System:

The inner tent is suspended from the frame with 26 metal galvanized 4mm wire hooks mounted on webbing loops of 50mm wide. The total length of the loops including the metal hook is 100mm.

The hooks are positioned as per below drawing: 6 at the ridge, 5 on each side wall pipe and 4 on each gable pipe.

The side walls of the inner tent are hooked with plastic hooks mounted on webbing loops to the corresponding rings of the base plates of the frame.

These elastic webbing bands are stitched to the tent in the seam where the PE and fabric are joined.



4.5 Inner Tent Windows:

The inner tent has 1 door, 3 windows, one on each side wall and one at the front wall and one air cooler opening, all are the same size and same reinforcement of outer tent, corresponding to the outer tent windows and openings.

The flap made of same material as the inner tent is placed inside and opens upward. The flap is held by 25mm Velcro webbing which is placed along the length of the vertical sides and bottom and at a 25mm distance from the window opening.

Plastic toggles or hooks are used to keep the flap open when rolled up.

4.6 Accessories inside the inner tent

To hang light weight properties, 2 pouch hangs above each window, webbing with hooks at the ridge.

PART 5: ACCESSORIES

5.1 Ropes/loops/ guy runners:

- 4 corner ropes, black, UV treated, 3m long each, 6mm diameter, a min tensile strength of 300 kg.
- 6 intermediate ropes, black, UV treated, 3m long each, 5mm diameter, a min tensile strength of 140 kg.
- All ropes to be passed in the rings of the tent from factory.
- All ropes to have a securely knotted loop at one end, to place over the peg.
- Hard wood or strong UV proof plastic guy runners, red color, already mounted on the ropes.
- The grain of the wood runners to run lengthwise of the runner.
- Size of the runners: 90 x 30 x 12mm, holes to be the same as the diameter of the rope.
- The ropes are passed in the runners in a way that makes the maximum blocking effect on the ropes

Guy runner

5.2 Pegs:

- 10 pegs of 30cm long, made of crossed iron 4sides of 25mm wide, 3mm thick, with an iron rod of 50mm long and 6mm diameter welded on the top. Pegs are galvanized iron.

PART 6: Cover Packing

One tent with accessories of section A of this document can be packed into a master bundle. The outer tent and the inner tent are folded in a way to ensure that the mud flaps sheet protects the tent and

accessories from dirt and moisture. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.

The metal pegs are packed in separate bag to avoid damaging tent canvas inside the master bundle. this bag is made of the same material as the master bundle. This bag has a closure system that ensures that the pegs will not fall out of the bag during transport and handling. Particular care should be taken when packing the pegs to assure they will not pierce the bag.

The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.

B-TENT STRUCTURE:

B.1-POLES AND FITTINGS:

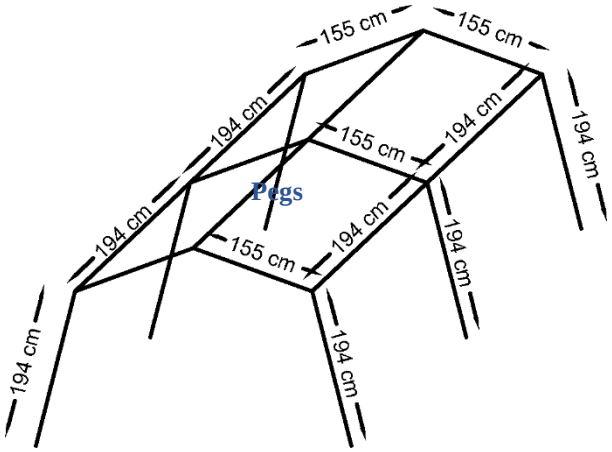
All frame pipes are made of 2mm thick galvanized steel pipes of 5cm diameter, the PVC male fittings of the cross pieces are to be minimum 10 cm long inside pipe.

-12 pipes of 5cm diameter 194cm length.

-6 pipes of 5cm diameter 155cm length.

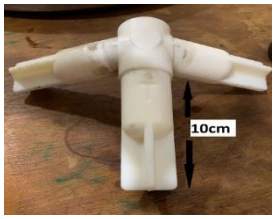
-3 PVC male adapter 4way fitting.

-6 PVC male adapter 3way fitting.



Poles dimensions

PVC male adapter 4way fittings



PVC male adapter 3way fittings

B.2-BASE PLATE:

-Each pipe has a base plate made of plastic and metal
-The base has a semi elapse shape dimensions of 10 x 8mm.
-Metal part of base has two rectangular slots to be connected to the outer and inner tents.

-The base plate is fixed to the ground by 30cm length galvanized iron peg diameter of 1.5cm.

B.3-STRUCTURE PACKING:

The structure accessories (Pipes, fittings, base plate and pegs) are packed into a master bundle, the metal pipes are bundled together by plastic straps to avoid sliding during transportation. The master bundle is made of woven polyethylene (PE) fabric of 180 gm2 identical to the one used on the mud flaps.
The pegs are bundled together by plastic straps and packed in separate bag to assure they will not pierce the master bundle; this bag is made of the same material as the master bundle and has a closure system that ensures that the accessories will not fall out of the bag during transport and handling, The master bundle is closed with 2 webbing straps on the outside, and each strap has a self-locking buckle that will not slide during transport. Each strap has 2 handles, (PE or polyester). These straps are not sewn to the bundle.