

**केंद्रीय मुहर विभाग-2**

संदर्भ: CMD-2/16: ७९०३

04 जनवरी 2018

विषय: IS 7903:2017 “ऊच घनत्व पोलिईथैलीन (एच डी पी ई) बुने कपड़े से बने तिरपाल” की एस टी आई (Doc: STI/7903/5 January 2018)

सक्षम प्राधिकारी ने IS 7903:2017 के अनुसार “ऊच घनत्व पोलिईथैलीन (एच डी पी ई) बुने कपड़े से बने तिरपाल” की एस टी आई (Doc: STI/7903/5 January 2018) को अनुमोदित किया है।

सभी पक्षदारों को यह एस टी आई पहले संचालित दिशा निर्देश अनुसार अनुपालन हेतु अनुमोदित किया जाता है।

(आदित्य दास)  
वैज्ञानिक सी

**प्रमुख (CMD-2)**

सभी क्षेत्रीय /शाखा कार्यालयों/TXD/LPPD को परिचालित

प्रतिलिपि: ITS इंटरनेट पर अपलोड करने के लिए

**CENTRAL MARKS DEPARTMENT-2**

Ref: CMD-2/16: 7903

04-Jan-2018

Subject: Revised STI (Doc: STI/7903/5 January 2018) for ‘Tarpaulins made from High Density Polyethylene (HDPE) Woven Fabrics’ as per IS 7903:2017

Please find enclosed Revised STI (Doc: STI/7903/5 January 2018) for ‘Tarpaulins made from High Density Polyethylene (HDPE) Woven Fabrics’ as per IS 7903:2017 which have been duly approved by Competent Authority for implementation as per guidelines circulated separately.

(Aditya Das)  
Scientist C

Head CMD-2

Circulated to all ROs/BOs/TXD/LPPD

Copy to: ITS for hosting on BIS website

**SCHEME OF TESTING AND INSPECTION  
FOR CERTIFICATION OF  
TEXTILE - TARPAULINS MADE FROM HIGH DENSITY  
POLYETHYLENE (HDPE) WOVEN FABRICS  
ACCORDING TO IS 7903:2017  
(Fifth Revision)**

**1. LABORATORY**

- 11** A laboratory shall be maintained, which shall be suitably equipped and staffed, where different tests given in the specification shall be carried out in accordance with the method given in the Indian Standard.
- 12** All testing equipments shall be periodically checked, verified and calibrated and records of such checks/verification/calibration shall be maintained.

**2. TEST RECORDS**

- 21** All records of the tests as per this Scheme of Testing and Inspection shall be kept in suitable forms.
- 22** Copies of any such records that may be required by BIS shall be made available at any time on request.

**3. QUALITY CONTROL**

- 31** It is recommended that, as far as possible, Statistical Quality Control (SQC) methods may be used for controlling the quality of the product during production as envisaged in this Scheme [See IS 397 (Various parts)].
- 32** In addition, efforts should be made to gradually introduce a Quality Management System in accordance with IS/ISO 9001.

**4. STANDARD MARK**

- 41** The standard mark as give in column (1) of the First Schedule of the licence shall be screen printed with indelible ink or label affixed on each Tarpaulin made from High density polyethylene woven fabric provided always that the Tarpaulin made from high density polyethylene woven fabric conform to every requirement of the specification.

## **5. MARKING**

**51** In addition, each tarpaulin made from high density polyethylene woven fabric shall be legibly marked with the following information at one corner on one side either with tag, label, sticker or by printing on it with indelible ink:

- a) Manufacturer's name, address and trade-mark, if any;
- b) Dimensions and Type;
- c) Batch Number/Control Unit No.;
- d) Month and year of manufacture;
- e) Any other information as required by the law in force;
- f) Licence No. (CM/L.....)
- g) BIS website details: [www.bis.gov.in](http://www.bis.gov.in)

## **6. PACKING**

**61** The tarpaulins shall be packed as agreed to between the buyer and the seller as per cl.8 of IS 7903:2017.

## **7. LEVELS OF CONTROL**

**71** Inspection and tests at various levels of control specified in Table 1 shall be carried out on all quantities of Tarpaulins made from high density polyethylene (HDPE) woven fabrics intended to be covered under this scheme and appropriate records as per para 2 and charts as per para 3 of this STI shall be maintained. All production which conforms to the Indian Standard and covered by the licence shall be marked with BIS Standard Mark.

## **8 CONTROL UNIT**

**81** For the purpose of this scheme, all tarpaulins made from same batch of laminated HDPE woven fabric (using same variety of basic fabric) and having same manufacturing particulars manufactured under similar condition in a day shall constitute a control unit.

## **9 RAW MATERIAL**

**91 HDPE Tapes-** Tapes shall be manufactured from HDPE granules (see IS 6192), which shall be UV stabilized by adding suitable UV stabilizer and/or carbon black. The tape, if manufactured by using carbon black shall contain minimum 2.5 percent of carbon black by mass when tested as per IS 2530.

**92 HDPE Fabric-** Tarpaulins shall be manufactured from HDPE woven fabric (see IS 6899) so that finished tarpaulin meets the requirements given in 6.2, 6.3 and Table 1 of IS 7903:2017. In case of Manufacturer's producing the tarpaulin from brought out woven fabric, every consignment should be accompanied with test certificate from supplier, indicating that the tapes used in woven fabric conforms to Clause 3.1 of IS 7903:2017.

**93 Eyelets-** Eyelets used in the manufacture of tarpaulins shall be as specified in clause 3.3 of IS 7903:2017. Metallic eyelets shall conform to dimensions as per IS 4084. Plastic eyelets having similar dimension may also be used, if agreed to between the buyer and the seller.

**94 Line/Cord Beading-** A line/cord beading of minimum of 2.5 mm diameter shall be provided along the length and width of the tarpaulin.

**95 Lamination-** The HDPE fabric used in manufacturing tarpaulin shall be laminated as per clause 5.1.1 and 5.1.2 of IS 7903:2017.

**10. Construction-**Tarpaulins shall be constructed as per clause 5.2 of IS 7903:2017.

**10.1 Joints/Seams –** Joints and seams shall be done as per cl. 5.3 of IS 7903: 2017.

**10.2 Fixing of eyelets-** Fixing of eyelets shall be done as per clause 4.3 of IS 7903:2017.

## **11. REJECTION**

**11.1** A separate record shall be maintained giving information relating to the rejection of Tarpaulins made from High Density Polyethylene Woven fabric which do not conform to the specification and the method of their disposal. Such material shall in no case be stored together with that conforming to the specification. The standard mark (if already applied) on rejected materials shall be defaced.

## **12. SAMPLES**

**12.1** The licensee shall supply, free of charge, the samples required in accordance with the Bureau of Indian Standards (Certification) Regulations from the factory or godown. BIS may draw samples from the open market, if available.

## **13. REPLACEMENT**

**13.1** Whenever a complaint is received soon after the goods with Standard Mark have been purchased and used, and if there is adequate evidence that the goods have not been misused, defective goods or their components are replaced or repaired free of cost by the licensee in case the complaint is proved to be genuine and the warranty period (where applicable) has not expired. The final authority to judge the conformity of the product to the Indian Standard shall be with the Bureau.

**13.2** In the event of any damages caused by the goods bearing the standard mark, or any claim being filed by the consumer against BIS Standard Mark and not “conforming to” the relevant Indian Standard, entire liability arising out of such non-conforming product shall be of the licensee and BIS shall not in any way be responsible in such cases.

#### **14.0 STOP MARKING**

**14.1** The marking of the product shall be stopped under intimation to the Bureau if, at any time, there is some difficulty in maintaining the conformity of the product to the specification, or the testing equipment goes out of order or due to any other reason. The marking may be resumed as soon as the defects are removed under ~~to~~ intimation to BIS.

The marking of the product shall be stopped immediately if directed to do so by BIS for any reason. The marking may then be resumed only after permission by BIS. The information regarding resumption of markings shall also be sent to BIS.

#### **15.0 PRODUCTION DATA**

**15.1** The licensee shall send to BIS a statement of quantity produced, marked and exported by him and the value thereof at the end of each operative year of the licence as per the enclosed proforma (Annex 1) which has to be authenticated by a Chartered Accountant.

**IS 7903:2017**  
**TEXTILE - TARPAULINS MADE FROM HIGH DENSITY**  
**POLYETHYLENE (HDPE) WOVEN FABRICS**  
**Table 1 LEVELS OF CONTROL**  
**(Para 7.0 of the Scheme of Testing and Inspection)**

<b>TEST DETAILS</b>				<b>LEVELS OF CONTROL</b>		<b>REMARKS</b>
<b>Clause.</b>	<b>Requirement</b>	<b>Test Method</b>		<b>No. of Sample</b>	<b>Frequency</b>	
		<b>Clause</b>	<b>Reference</b>			
3.1	HDPE tape	3.1	IS 7903:2017	Five	Every 8 hours	i)Applicable to manufacturers of tarpaulins from HDPE granules with Integrated processing facility  ii)Applicable to manufacturers of tarpaulins from brought out unlaminated fabric — Every Consignment shall be accompanied with test certificate from supplier, indicating that the tapes used in woven fabric conforms to Clause 3.1 and 3.2 of IS 7903:2017
3.2	HDPE fabric	3.2	IS 7903:2017	Five	Every 8 hours	
3.3	Eyelets	3.3	IS 7903:2017	32	Each Control Unit/Each consignment	In case of dimensions other than size 28 or 30 as per IS 4084, records of all such agreed dimensions between manufacturer and purchaser shall be maintained.
3.4	Line/Cord Beading	3.4	IS7903:2017	Three	Each Control unit	
5.1	Lamination	5.1.1	IS 7903:2017	Five	Every 8 hours	
5.1.2	Sandwich lamination	5.1.2	-do-	-do-	-do-	
5.2, 5.2.1 & 5.2.2	Construction	5.2	IS 7903:2017	Every Tarpaulin		
5.3	Joints/Seams	5.3	-do-	Five	Each Control Unit	

5.4	Fixing of eyelets	5.4	-do-	-do-	-do-	<del>do</del>
6.2	Dimension	6.2	-do-	Five	-do-	
6.3	Water Proofness	6.3	-do-	Three	-do-	<del>do</del>
6.1 and Table 1						
i)	No. of HDPE fabric layer	-	-	Three	Each Control Unit	
ii)	No. of lamination layers	-	-	-do-	Each Control Unit	
iii)	Total number of layers in the finished tarpaulin	-	-	-do-	Each Control Unit	
iv)	Mass of finished tarpaulin, g/m <sup>2</sup> .	Annex B	IS 7903:2017	Two	Each Control Unit	
v)	Mass of laminated fabric, g/m <sup>2</sup> ,	Annex C	IS 7903:2017	-do-	Each Control Unit	
vi)	Breaking strength before UV exposure, N, a) Warp b) Weft		IS 1969 (Part 1)	-do-	Each control unit	
vii)	Elongation at break, percent (warp and weft)		IS 1969 (Part 1)	Two	Each Control Unit	
viii)	Retention of breaking strength after UV exposure of 144 h (warp and weft), percent, N		IS 13162 (Part 2) and IS 1969 (Part 1)	Three	Once in three months	
ix)	Welded seam strength before UV exposure (weft), N,		IS 1969 (Part 1)	One	Each control unit	
x)	Retention of welded seam strength after UV exposure of 144 h (weft), percent, N,		IS 13162 (Part 2) and IS 1969 (Part 1)	Three	Once in three months	
xi)	Trapezoid tear strength, N,		IS 14293	One	Each control unit	

xii)	Puncture resistance, N,	Annex D	IS 7903:2017	-do-	-do-	
xiii)	Impact failure load, at 1 524 mm drop, min, gram force at 50 percent failure	Annex E	IS 7903:2017	-do-	Once in a week	All types produced during one month shall be covered.
xiv)	Colour fastness to light (for coloured tarpaulins)		IS 2454	-do-	Once in six months	Note 1
xv)	Ash content, percent,	Annex F	IS 7903:2017	-do-	Each control unit	

Note 1: In the first instance samples for each colour and shade shall be drawn and tested in an independent laboratory or in their own laboratory in case facilities exist. These colors and shades only shall be marked which confirm to the relevant requirement of the specification. Afterwards an undertaking to the effect that there shall be no change in brand of the color used, colour shade and processing conditions may be obtained. However, 2 samples drawn from each colour and shade shall be get tested once a year in an independent laboratory.



**ANNEX I****PROFORMA FOR OBTAINING PRODUCTION DETAILS**

Period covered	
Name of Licensee CM/L No.	
Name of Articles (s)	IS No.
Grade/Type/Size/Variety/Class/Rating	
Brand/Trade/Name(s) of Product covered under BIS Certification Mark	
Total production of the articles(s) licensed for certification marking	
Total production of the article(s) conforming to Indian Standard	
Production covered with BIS Certification Mark and its Value :	
a) Quantity b) Value (Rs.)	
Brand Name used on production covered under BIS Certification Mark	
Calculation of marking fee on unit-rate basis; Marking Fee per unit a) Unit*	
b) Quantity covered with BIS Certification Mark c) Marking fee rounded off in whole rupees as obtained by applying unit rates given in (a) on quantity given in (b)	
Quantity not covered with BIS Certification Mark, if any.	
Reasons for such non-coverage	
Brand Name under which non-ISI goods were sold	
Quantity exported with BIS Standard Mark and its value	
Brand Name under which BIS Certified goods are exported	
Authentication by Chartered Accountant	

**Note:** In case a clause is not applicable, suitable remarks may be given against it.

\*Information to be filled up by BO before forwarding to the licensee.