सिपेट : कौशल एवं तकनीकी सहायता केन्द्र (सी.एस.टी.एस.)
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CIPET सि पे ट
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CIPET : CENTRE FOR SKILLING AND TECHNICAL SUPPORT (CSTS)
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Ministry of Chemicals & Fertilizers, Govt. of India)
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PLASTIC TESTING CENTRE TEST CERTIFICATE

Series : E

क्र.No. : 20434

Certificate No.: TC-6378

ULR No. TC637821000005822F

Test Report No. 25540
Date: 01.10.2021

Issued to
M/s MIPA Industries
3, S No. 36/3/2, Dagade Farm Road Pisoli,
Pune – 411060

TEST REPORT AS PER IS: 15907:2010 (Reaffirmed Year : 2019) With Latest Amendment

PART – A

PARTICULARS OF SAMPLE SUBMITTED

नमूना विवरण / Sample details: Agro Textile - High Density Polyethylene (HDPE) Woven Beds for Vermiculture - As Stated by party

Ref. No. : Letter
Date : 29.07.2021

ग्रेड/वेरेटी/टाईप/साईस/क्लास / Grade/Variety/Type/Size/Class	: Nil
बैच नं०/लोट नं० / Batch No / Lot No.	: Nil
उत्पादन की दिनांक / Date of manufacturing	: Nil
प्राप्त नमूने की दिनांक / Date of sample received	: 30.07.2021 & 20.09.2021
परीक्षण समय /Test Duration	: 30.07.2021 to 29.09.2021
नमूने की मात्रा /Qty of sample received	: 01 Pcs + 01 pcs unlaminate fabric,01 pcs coating film 01 pcs sandwich film, 01 no. bobbin tape
प्राप्त नमूने की स्थिति /Condition of receipt of sample	: Packed in woven sack
अन्य विवरण /Any other details	: Nil

PART – B

SUPPLEMENTRY INFORMATIONS

a)	Reference to sampling procedure wherever applicable	:	Supplied by the party
b)	Supporting documents for the measurements taken and Results derived like graphs, tables, sketches and/or Photographs as appropriate to test report, if any (to be attached).	:	As given in Part-C
c)	Deviation from the test methods as prescribed in Relevant work instruction, if any	:	Nil

निरंतर / Contd....2

01.10.2021

Mamata Sahoo – (A.T.O.)
अधिकृत हस्ताक्षर /Authorised Signatory

01/10/21

Dr. Sanjeev Kumar Jain - Manager (T.S.)
अधिकृत हस्ताक्षर /Authorised Signatory

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PART-C

TEST RESULTS AS PER IS: 15907:2010 (Reaffirmed Year : 2019) With Latest Amendment

S. No.	Clause	Name of the Test	Test Method	Unit	Test Value Obtained	Specified Requirements
Discipline: Chemical					**Group : Plastic & Resins**	
01.	**4.1**	**HDPE Tape**				
	a.	Identification	ASTM E1252	-	HDPE	Shall be HDPE
	b.	U.V. Stabilizer		-	Conforms	Shall be U.V. stabilized
02.	4.2	**HDPE Fabric**				
		Identification	ASTM E1252	-	HDPE	Shall be HDPE
03.	**5.2**	**LAMINATION**				
	5.2.1	Identification	ASTM E1252	-	LLDPE	Shall be LDPE or combination of LDPE or combination of LDPE & LLDPE
		U.V. Stabilizer	ASTM E1252	-	Conforms	Shall be U.V. stabilized
Discipline : Mechanical					**Group : Plastics And Plastic Products**	
04.	**4.1**	**HDPE Tape**				
	c.	Width of tape	IS 15907 / IS 6192	mm	2.70	Shall be 1.20 mm (min.)
	d.	Linear density		Denier	933.9	800 Denier
05.	4.3	**CORD BEADING**				
		Diameter of Jute/Sisal rope beading	IS 15907	mm	8.26	Shall be minimum 6.0 mm
06.	5.2	**LAMINATION**				
	5.2.1	Thickness of coating	IS 15907	micron	42	Shall not be less than 25 micron
07.	5.2.2	Layers of HDPE fabric joined with sandwich lamination	IS 15907	-	Conforms	A 7 layer lamination fabric is produced using a combination of 3 layers of HDPE fabric and 4 layers of coating film. The layers HDPE fabric used to manufacture beds shall be joined by sandwich lamination. The minimum coating thickness of the sandwich lamination shall be 40µ.
				micron	55.4	
08.	**MANUFACTURE**					
	5.3	Bonding	IS 15907	-	Conforms	If two or more pieces of fabric are used for the manufacture of bed, the woven fabrics shall be bonded together by a suitable heat sealing process 2.5 cm
		Overlapping		cm	5.6	
09.	5.3.1	**CONSTRUCTION**				
	a.	Width of hem	IS 15907	mm	40	Shall be minimum 40 mm
	b.	No. of net windows		Nos.	06	06 (3 net windows shall be provided both sides along the length direction)
10.	c.	**Size of net window**				
		Length	IS 15907	mm	254	260 mm ±20
		Width		mm	156	150 mm±20

Contd....3

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पेज नं. 3 of 4

PART-C

TEST RESULTS AS PER IS: 15907:2010 (Reaffirmed Year : 2019) With Latest Amendment

S. No.	Clause	Name of the Test	Test Method	Unit	Test Value Obtained	Specified Requirements
Discipline : Mechanical					**Group : Plastics And Plastic Products**	
	d	Identification of net window material	IS 15907	-	Conforms	Shall be PE net
11.	e.	Dimension of Outlet	IS 15907	-	Conforms	This outlet shall be covered by polyethylene nets and shall be heat sealed
		i. Length		mm	101	100 mm ± 10
		ii. Width		mm	45	40 mm ± 10
12.	f.	No. of supporting pockets for inserting wooden pegs	IS 15907	Nos	14	Shall be 14 nos.
	g.	Diameter of hole inserting wooden pegs		-	Conforms	The upper end of the pocket thus formed shall be heat sealed while forming the hemming at the top edge of the bed whereas at the bottom end.
				mm	61	Shall have created a diameter for 40 mm wooden pegs
	h.	Finished width of pocket		mm	120	shall have 120 mm
13.	**REQUIREMENTS (Table 1 & Cl. 4.2,5.2,5.2.2, 6)**					
	6.1	**Dimensions and mass**				
	a.	i. Length	IS 15907	mm	3610	3600
		Tolerance		%	(+) 0.28	(+) 5, (-) 2
	b.	ii. Width		mm	1217	1200 mm
		Tolerance		%	(+) 1.40	(+) 5, (-) 2
	c.	iii.Height		mm	602	600
		Tolerance		%	(+) 0.33	(+) 5, (-) 2
	sl.No.(i)	Mass Tolerance	IS 1964	g/m^2 %	358.4 (+) 5.41	Min 340 or subjected to declared mass (+) 6, (-) 2
	sl.No. (ii)	**Breaking Strength before UV Exposure**				
		i. Warp	IS 1969	N	2334	1900 (min.)
		ii. Weft		N	2263	1300 (min.)
14.	sl.No. (iii)	**Elongation at break**				
		i. Warp	IS 1969	%	18.5	20 ± 5
		ii. Weft		%	17.7	20 ± 5
15.	sl.No. (iv)	**Retention of Breaking Strength after UV exposure**				
		Warp Tolerance	IS 15907 Annex-B/ IS 1969	N %	2113 90.5	min 85% of original actual value (min.) fabric i.e. 2334
		Weft Tolerance		N %	2039 90.10	min 85% of original actual value (min.) fabric i.e. 2263

Contd....4

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PART-C

TEST RESULTS AS PER IS: 15907:2010 (Reaffirmed Year : 2019) With Latest Amendment

S. No.	Clause	Name of the Test	Test Method	Unit	Test Value Obtained	Specified Requirements
Discipline : Mechanical					**Group : Plastics And Plastic Products**	
16.	sl.No. (v)	Welded seam strength before UV exposure Tolerance	IS 1969	N %	1640 72.6	65% of original actual value (min.) i.e. 2263 (weft)
17.	sl.No. (vi)	Welded seam strength after UV exposure Tolerance	IS 15907 Annex-B/ IS 1969	N %	1458 88.9	85% of original actual value (min.) i.e. 1640
18.	sl.No. (vii)	**Tear Strength**				
		i. Warp	IS 7016 (Pt-3) Method-A2	N	132.8	100 (min.)
		ii. Weft		N	122.6	100 (min.)
	sl.No. (viii)	Puncture Strength	IS 15907 (Annex-C)	N	903.5	325 (min.)
	sl.No. (ix)	**Environmental Stress Cracking Resistance Test**				
		at 60 °C for 48 hours	IS 15907 (Annex-D)	-	Conforms	There shall be no evidence of stress cracking
	sl.No. (x)	**Resistance to Chemicals**				
		Change in mass				
		i. Sulphuric Acid (H_2SO_4)	IS 15907 (Annex-E)	%	0.09	0.1 %
		ii. Hydrochloric Acid (Hcl)			0.02	
		iii.Sodium Hydroxide (NaOH)			0.08	
		iv.Sodium Chloride(Nacl)			0.08	
		v.Ammonium Hydroxide (NH_4OH)			0.01	
	sl.No. (xi)	Colour Fastness to artificial light	IS/ISO 105-B02	-	>4	4 or better
	sl.No.(xii)	Bursting Pressure	IS 1966	kg/cm²	36.0	35 (min)
19.	6.2 (6.2.1 & 6.2.2)	**Water Proofness test**				
		Water Repellency by cone test				
	a.	i. Before Ageing	IS 7941	-	Conforms	There shall be no leakage
		ii. After Ageing		-	Conforms	There shall be no leakage
	b.	**Resistance to Water Penetration**				
		i. Before Ageing	IS 7940	-	Conforms	Shall not leak through the bed
		ii. After Ageing		-	Conforms	Shall not leak through the bed

PART-D

Remarks: Nil

Note:

1. This Test Report / Certificate is issued only for the samples submitted to CIPET.
2. The results stated above related only to the sample tested.
3. The quality of the subsequent production lot has to be ensured by the purchaser.
4. The report full or part shall not be reproduced, published, advertised, and used for any legal action without written approval from the laboratory.
5. Selection of samples for individual test have been done in accordance with respective clauses of as per IS: 15907:2010 (Reaffiremed Year: 2015) with latest Amendment.
6. Details of test sub-contracted: Nil
7. Remnant samples will be disposed after 3 months from the date of issue of test report.
8. Statement of conformity of a specification or standard is provided by laboratory taking into account the level of risk associated/ Border line case with the decision rule employed.

01.10.2021

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