

IS -17729:2021 Agro Textile - Flexible water Storage tank for Agriculture and Horticulture Purposes Specification - Amendment Proposal

S.No	Clause number	Existing Procedure	Concerned	Proposal of Changes requested	Justification																																																
1	Table-2 Requirement for inner Layer	<p align="center">Table 2 Requirements for Inner Layer (Clauses 4.2 and 6.1)</p> <table border="1"> <thead> <tr> <th>Sl No.</th> <th>Characteristics</th> <th>Requirements</th> <th>Method of Test, Ref to</th> </tr> <tr> <th>(1)</th> <th>(2)</th> <th>(3)</th> <th>(4)</th> </tr> </thead> <tbody> <tr> <td>i)</td> <td>Tensile strength at break, kg/cm², <i>Min</i></td> <td></td> <td>IS 13360 (Part 5:Sec 1) and IS 13360 (Part 5:Sec 3)</td> </tr> <tr> <td></td> <td>a) Machine direction</td> <td>350</td> <td></td> </tr> <tr> <td></td> <td>b) Transverse direction</td> <td>350</td> <td></td> </tr> <tr> <td>ii)</td> <td>Elongation at break, percent, <i>Min</i></td> <td></td> <td>IS 13360 (Part 5:Sec 1) and IS 13360 (Part 5:Sec 3)</td> </tr> <tr> <td></td> <td>a) Machine direction</td> <td>650</td> <td></td> </tr> <tr> <td></td> <td>b) Transverse direction</td> <td>650</td> <td></td> </tr> <tr> <td>iii)</td> <td>Ageing test at (70 ± 1) °C for 7 days</td> <td>Maximum 30 percent reduction of original values of tensile strength</td> <td>4 of IS 7016 (Part 8)</td> </tr> <tr> <td>iv)</td> <td>Dart impact strength, g. <i>Min</i></td> <td>Shall not fail at 1650 g</td> <td>Method D of IS 13360 (Part 5:Sec 6)</td> </tr> <tr> <td>v)</td> <td>Moisture vapour transmission rate for single inner layer, g/m²/day, <i>Max</i></td> <td>2</td> <td>Ames C</td> </tr> <tr> <td>vi)</td> <td>Oxygen transmission rate, cc/m²/day, <i>Max</i></td> <td>1</td> <td>ISO 15105-2</td> </tr> </tbody> </table>	Sl No.	Characteristics	Requirements	Method of Test, Ref to	(1)	(2)	(3)	(4)	i)	Tensile strength at break, kg/cm ² , <i>Min</i>		IS 13360 (Part 5:Sec 1) and IS 13360 (Part 5:Sec 3)		a) Machine direction	350			b) Transverse direction	350		ii)	Elongation at break, percent, <i>Min</i>		IS 13360 (Part 5:Sec 1) and IS 13360 (Part 5:Sec 3)		a) Machine direction	650			b) Transverse direction	650		iii)	Ageing test at (70 ± 1) °C for 7 days	Maximum 30 percent reduction of original values of tensile strength	4 of IS 7016 (Part 8)	iv)	Dart impact strength, g. <i>Min</i>	Shall not fail at 1650 g	Method D of IS 13360 (Part 5:Sec 6)	v)	Moisture vapour transmission rate for single inner layer, g/m ² /day, <i>Max</i>	2	Ames C	vi)	Oxygen transmission rate, cc/m ² /day, <i>Max</i>	1	ISO 15105-2	<p>(i)Tensile strength at break,Kg/cm2, min a)Machine direction - 350 is not achievable. b)Transverse direction -350 is not achievable. (vi)Oxygen transmission rate,CC/m²/day max -1 also not achievable.</p>	<p>Table-2 Requirement for inner Layer (i)Tensile strength at break,Kg/cm2, min a)Machine direction - 250 is achievable. b)Transverse direction -250 is achievable. (vi)Oxygen transmission rate,cc/m2/day max - 1.5 is achievable.</p>	<p>Table-2 Requirement for inner Layer Calculated mechanical characteristic of Inner Layer of PE/Tie/Nylon/Tie/EVOH/Tie/PE mentioned in the standard is Tensile strength at break, Machine direction - 350 Kg/cm² and Transverse direction - 350 Kg/cm² and Oxygen transmission rate maximum - 1.0cc/m²/day. Which actual does not match the requirement of standard.</p>
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2	5.1.2	<p>5.1.2 Outer Layer— The fabric used in the manufacture of outer fabric shall be woven as a tube on circular looms from PP tapes having width of 2.1 mm (tolerance of ± 5 percent) conforming to IS 11197, and linear density of 222 tex (2 000 denier) in warp direction and PP tape of 311 tex (2 800 denier) in weft direction. The mass of the fabric shall be 170 g/m² with a tolerance of ± 3 percent, and the ends/dm and picks/dm shall be 48 × 48 with a tolerance of ± 2. The denier of PP tape used in the manufacture of woven fabric shall be subjected to the following tolerances:</p> <p>a) ± 10 percent on individual value, and b) ± 5 percent on average.</p>	<p>Outer Layer - PP fabric could not able to achieve the Standard specified value.i.e tape width 2.1mm -2000denier in weft direction and 2800 denier for wrap direction.</p>	<p>Clause no:5.1.2 Outer Layer - The fabric used in the manufacture of outer fabric shall be woven as a tube on circular looms from PP tapes having width of 2.3mm (Tolerance of +/-5%) conforming to IS 11197, and Linear density of 195 tex (1750 denier) in warp direction and PP tape of 195 tex (1750denier) in weft direction. The mass of the fabric shall be 170GSM (Tolerance of +/-3%) and ends/dm and Picks /dm shall be 44x44 with a tolerance of ±2. the denier of PP tape used in the manufacture of woven fabric shall be subjected to the following tolerances. a) ±10 percent on individual value, and b) ±5 percent on average.</p>	<p>Clause no:5.1.2 Calculated GSM with tape denier mentioned in the standard is 250GSM which does not match the GSM requirement of 170 GSM as mentioned in the standard.</p>																																																