

PRODUCT SPECIFICATION

CoolGuard<sup>®</sup> MPK45

1.0 BASE FABRIC

1.1	Base Fabric Weight	2.7	oz/yd <sup>2</sup>	(92	g/m <sup>2</sup> )
1.2	Fiber / Style	Polyester / Knit			

2.0 COATED FABRIC

2.1	Total Weight (nominal)	50	oz/yd <sup>2</sup>	(1,700	g/mm <sup>2</sup> )
2.2	Thickness (±10%)	45	mils	(1.14	mm)
2.3	Coating Type	Polymer Alloy			
2.4	Coating Distribution	50 / 50			
2.5	Sealing Properties	<input checked="" type="checkbox"/>	Dielectric	<input checked="" type="checkbox"/>	Thermal

3.0 MATERIAL PROPERTIES (Minimum)

**Standard**

**Metric**

ASTM TEST  
METHODS

		<b><u>Standard</u></b>	<b><u>Metric</u></b>	
3.1	Tensile Strength, Grab			
	Warp (MD)	250 lbs	1,110 N	D751A
	Fill (TD)	200 lbs	890 N	
3.2	Tensile Strength, 1" Strip			
	Warp (MD)	130 lbs	578 N	D751B
	Fill (TD)	120 lbs	534 N	
3.3	Tear Strength, Tongue			
	Warp (MD)	40 lbs	178 N	D751B (Mod)
	Fill (TD)	30 lbs	133 N	
3.4	Puncture, Flat Tip	95 lbs	423 N	D4833
3.5	Puncture, Ball	350 lbs	1,560 N	D751
3.6	Puncture, Pyramid	200 lbs	890 N	FTMS 101C, 2031
3.7	Hydrostatic Resistance	350 psi	2.41 MPa	D751-A
3.8	Dimensional Stability (180°F/1 hr)	2.5 % max	2.5 %	D1204
3.9	Ply Adhesion	20 lbs/2 in	89 N/5 cm	D751 (Mod)
3.10	Low Temp Bend	-25 °F max	-32 °C	D2136
3.11	Dead Load Seam Strength	100 lbs @ 70°F	445 N @ 21°C	D751
		50 lbs @ 160°F	222 N @ 71°C	

A variety of standard widths and colors are available. Contact Cooley Engineered Membranes for details.

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## REVISION HISTORY

6/22/04 – Initial release

4/29/05 – Changed dimensional stability conditions from 212F to 180F per Ketan information regarding knit fabrics inability to meet spec at the higher temperature.

10/17/05 – Updated physical property values after reviewing MPK36, MPK60 and HPK80 data generated from both RI and SC. See MPK36 Internal Comparison for details.