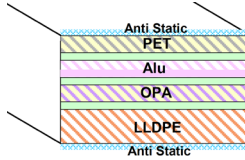


Exclusive USA / European representative  
for Senawang Laminating Technologies



## SL4340A Moisture Barrier Laminate



SL4340A is a matte side nylon/foil moisture barrier laminate designed for ESD applications. The construction has been designed to resist puncture and minimize some forms of contamination including outgassing, and non-volatile residues. It is free of chlorinated solvents, primary amines, and silicone compounds.

PHYSICAL PROPERTIES	TEST METHOD	US STD.	METRIC
Thickness*	ASTM D374	4.0 mil	101.6 $\mu\text{m} \pm 10\%$
Basis Weight*		63.0 lbs/ream	102.9 $\text{g}/\text{m}^2 \pm 10\%$
Yield		47.5 $\text{ft}^2/\text{lb}$ 6840 $\text{in}^2/\text{lb}$	9.7 $\text{m}^2/\text{kg}$
Tensile Strength MD* TD*	ASTM D882	9860 psi 12325 psi	68.0 MPa 85.0 MPa
Elmendorf Tear Resistance MD* TD*	ASTM D1922		90 gf 120 gf
Graves Strength MD* TD*	ASTM D1004		1600 gf 1600 gf
Spencer Impact*	ASTM D3420		> 6400 gf
Puncture Resistance*	FTMS 101C Method 2065	27.8 lbf	12600 gf
Moisture Vapor Transmission Rate	ASTM F1249	< 0.0003 $\text{g}/100 \text{ in}^2/\text{day}$	< 0.005 $\text{g}/\text{m}^2/\text{day}$
Heat Seal Range	ASTM F88-99	275°F - 500°F	135°C - 260°F
Seal Strength (min.)	ASTM F88-99 (200°C, 1s, 4 bar)	> 13.2 lbf	> 6000 gf
ELECTRICAL PROPERTIES	TEST METHOD	SPECIFICATIONS	
Surface Resistance	EOS/ESD S11.11	> $1 \times 10^5$ and < $1 \times 10^{11} \Omega$	
Surface Resistivity	EOS/ESD S11.11	> $1 \times 10^5 \Omega/\text{sq}$ and < $1 \times 10^{11} \Omega/\text{sq}$	
Capacitive Probe	EIA-541	< 25 V	
Electrostatic Decay	FTMS 101 Method 4046	< 0.05 s	
Energy Test*	EOS/ESD S11.31	< 5 nJ	

\*Average values given.

**Shelf Life:** The shelf life of this is one year under normal warehouse conditions. Extreme hot or cold temperatures and humidity can cause a reduction in the shelf life.

**Disclaimer:** The above information is presented in good faith based on a limited number of samples taken from normal production materials. Actual test values may vary from information presented. MacPac, Inc. and Senawang Laminating Technologies Sdn. Bhd. reserve the right to change the specification at anytime without prior notification. MacPac, Inc. and Senawang Laminating Technologies Sdn. Bhd. assume no liability, expressed or implied, for fitness of use of this product in any application. Users of this material are strongly encouraged to test its fitness of use in their processes and applications.