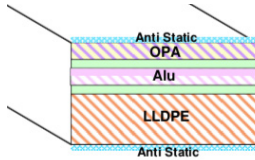


Exclusive USA / European representative
for Senawang Laminating Technologies



SL4060A Moisture Barrier Laminate



SL4060A is a shiny 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 STANDARD	METRIC
Thickness*	ASTM D374	6.0 mil	152.4 $\mu\text{m} \pm 10\%$
Basis Weight*		96.3 lbs/ream	157.4 $\text{g/m}^2 \pm 10\%$
Yield		31.0 ft^2/lb 4460 in^2/lb	6.4 m^2/kg
Tensile Strength MD* TD*	ASTM D882	4790 psi 4640 psi	32 MPa 32 MPa
Elmendorf Tear Resistance MD* TD*	ASTM D1922		310 gf 370 gf
Graves Strength MD* TD*	ASTM D1004		1920 gf 2260 gf
Spencer Impact*	ASTM D3420		4250 gf
Puncture Resistance*	FTMS 101C Method 2065	20.0 lbf	9100 gf
Moisture Vapor Transmission Rate	ASTM F1249	0.0003 $\text{g}/100 \text{ in}^2/\text{day}$	0.005 $\text{g}/\text{m}^2/\text{day}$
Oxygen Gas Transmission Rate	ASTM D 3985-05 (23.0°C, 0% RH)	0.005 $\text{cc}/100 \text{ in}^2/\text{day}$	0.0775 $\text{cc}/\text{m}^2/\text{day}$
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	> 1×10^5 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 S11.11	< 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.