



**TECHNICAL DATA SHEET**

# PET Insulation – M5PH1 (Single Sided) Phenolic B-Stage Adhesive – M5PH2 (Double Sided)

A flexible composite insulation composed of 5 mil PET film coated on one or both sides with Arlon Innovations Phenolic based thermosetting adhesive system. The thermosetting adhesive is applied to the PET in b-stage form. Once b-staged, the product can be heated and pressed for full cure bonding to many substrates. The adhesive is tack-free at room temperature – no release liner is needed.

### PRODUCT ATTRIBUTES

- Excellent electrical properties and chemical resistance
- High adhesive bond strength
- RoHS and REACH compliant

REPRESENTATIVE PHYSICAL PROPERTIES		
PROPERTY	VALUE	TEST METHOD
<b>NOMINAL THICKNESS</b> (double coated)	0.007 inches	ASTM D374
<b>YIELD:</b> Square yards per pound Pounds per square yard	<b>Double Coat</b> 2.7 0.37	
<b>DIELECTRIC STRENGTH</b> (2" electrodes): <b>DIELECTRIC CONSTANT</b> (23°C, 50% RH, 100 Hz):	13,500 Volts 2.6	ASTM D149 ASTM D150-81
<b>TENSILE STRENGTH:</b> Machine Direction (MD) Cross Machine Direction (XMD)	86 lbf 110 lbf	ASTM D882A
<b>180° PEEL ADHESION (stainless steel):</b> Phenolic on Melinex Phenolic on 7 mil Al foil	Exceeds strength of PET > 30 lb/in	ASTM D3330
<b>LAMINATION PARAMETERS:</b> Temperature Time Pressure	310°F 30 minutes 25 – 75 psi	
<b>CONTINUOUS USE TEMPERATURE (PET)</b> <b>UPPER MELT TEMPERATURE (PET)</b> <b>MINIMUM SERVICE TEMPERATURE (PHENOLIC)</b>	150°C 255 – 260°C -40°C	

Lamination Parameters are to be used as guidelines only. Samples should be tested for each application to insure proper usability. Parameters can be adjusted to match performance requirements, but curing temperature should never fall below 310°F.

### STORAGE

- Shelf life: one (1) year from the date of shipment.
- Store in a clean area free from exposure to excessive heat, moisture, or direct sunlight (50°F to 80°F).

Product performance will vary in each application and is dependent upon composite construction. Arlon Innovations does not guarantee the replication of this data by third parties. None of the data or statements contained herein is intended to warrant the performance of this product. Data is representative and not intended as a manufacturing specification.