



TECHNICAL DATA SHEET

Phenolic Coated Nomex® – 410X7PH1 (Single Sided) Class R 220°C Insulation – 410X7PH2 (Double Sided)

A flexible composite insulation composed of 7 mil 410 Nomex® aramid paper coated on one or both sides with Arlon Innovations Phenolic based thermosetting adhesive system. The thermosetting adhesive is applied to the Nomex® 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 thermal stability, electrical properties, and chemical resistance
- Extremely high adhesive bond strength
- High continuous temperature resistance
- RoHS and REACH compliant

REPRESENTATIVE PHYSICAL PROPERTIES		
PROPERTY	VALUE	TEST METHOD
NOMINAL THICKNESS (double coated)	0.009 inches	ASTM D374
YIELD: Square yards per pound Pounds per square yard	Double Coat 3.12 0.32	
DIELECTRIC STRENGTH: (2-inch diameter electrodes)	6300 Volts	ASTM D149
TENSILE STRENGTH: Machine Direction (MD) Cross Machine Direction (XMD)	130 lb/in 64 lb/in	ASTM D828
DIELECTRIC CONSTANT	3.0 (23°C, 50% RH, 60 Hz)	ASTM D150
180° Peel Adhesion (stainless steel): Phenolic on Nomex Phenolic on 7 mil Al foil	Exceeds strength of Nomex > 30 lb/in	ASTM D3330
LAMINATION PARAMETERS: Temperature Time Pressure	310°F 30 minutes 25 – 75 psi	
OPERATING TEMPERATURE	-40°C – 220°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.