

raPIId™ Flex Heater Dielectric

ARLON® raPIId™ polyimide substrates are a revolutionary new construction that incorporates the benefits of polyimide heater dielectrics with the flexibility and usability of a silicone adhesive system. This in turn greatly reduces both cure temperatures, pressures, and cycle times.

TEST METHOD				
Generic Product Description		39C20N005	39C20R007	I39C28N005
Kapton® Product Description		40C20N005	40C20R007	I40C28N005
Thickness, overall mm (mil)	ASTM D6988-13	0.13 (5)	0.18 (7)	0.15 (6)
Thickness, polyimide mm (mil)	ASTM D6988-13	0.05 (2)	0.05 (2)	0.05 (2)
Thickness, silicone adhesive mm (mil)	ASTM D6988-13	0.08 (3)	0.13 (5)	0.08 (3)
Inconel Alloy-600 Foil		None	None	0.03 (1)
Adhesive Color		Clear	Red	Clear
Weight per Unit Area g/m ² (lb/yard ²)		157 (0.29)	369 (0.68)	222 (0.41)
Break Strength kg/m (lbs/in)	ASTM D412	1227 (68.7)	1255 (70.3)	1500 (84)
Elongation (%)	ASTM D412	77.2	70.5	6.6
Ply Adhesion kg/m (lbs/in)	ASTM F904	161 (9)	296 (16.6)	130 (7.3)
Operating Temp °C (°F)		-50°C to 232°C (-58°F to 450°F)		
Dielectric	ASTM D140	9.5 kV		
UL Flame	UL E54153	HB		
UL RTI °C (°F)	UL E54153	150°C (302°F)		
Outgassing	ASTM E 595	Pass		
Laminating Conditions				
Temperature °C (°F)		120°C (248°F)		
Time		5-10 min		
Pressure kPa (PSI)		103-345 (15 to 50)		

All metric conversions are approximate.
 Additional technical information is available.
 Typical values should not be used for specification limits.