



raPId™ Flex Heater Dielectric Data Sheet

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

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