

AVIMID® N

Thermoplastic Polyimide

Cytec Industries Inc.

Message:

AVIMID® N is a high temperature, post-curable, 775°F (413°C) Tg thermoplastic polyimide composite with wet service capability up to 630°F (332°C) and dry service capability of 700°F (370°C). AVIMID N has the industry's best thermal oxidative resistance of all organic matrices and is the preferred product when high temperature durability is needed. It is a very tough composite system and has favorable dielectric properties making it well suited for missile and turbine engine applications.

AVIMID N was formulated to be a non-MDA, high temperature composite that would allow the use of typical safety/health procedures and personal protection equipment (PPE). It can be compression molded into low void parts to meet demanding aerospace requirements or alternatively processed in a vacuum bag autoclave process to meet more flexible requirements usually seen in non-aerospace applications.

AVIMID N is solution impregnated on a variety of fibers and fabrics that result in prepregs that retain their tack and drape for up to 6 days at 70°F (21°C). Tack can be regenerated or enhanced in a limited way by spraying the prepreg with ethanol. The prepreg has a shelf life of 12 months from date of manufacture when stored at 0°F (-18°C).

Suggested Applications:

Turbine engine components

Missile components

General Information		
Features	Autoclavable	
	Good Crack Resistance	
	Good Thermal Aging Resistance	
	Good Toughness	
	Heat Cure	
	High Heat Resistance	
	Oxidation Resistant	
Uses	Aerospace Applications	
	Industrial Applications	
	Structural Parts	
Forms	Fabric	
	Fiber	
Processing Method	Compression Molding	
	Vacuum Forming	
Physical	Nominal Value	Unit
Specific Gravity	1.45	g/cm ³
Mechanical	Nominal Value	Unit
Tensile Modulus ¹	4100	MPa
Tensile Strength ²	110	MPa
Tensile Elongation (Break)	6.0	%
Thermal	Nominal Value	Unit

Glass Transition Temperature ³	340 to 355	°C
NOTE		
1.	NR-150 resin	
2.	NR-150 resin	
3.	As molded plaque	

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