

FM® 680-1

Thermoset Polyimide
Cytec Industries Inc.

Message:

FM® 680-1 polyimide adhesive is a non-metallic version of FM 680 film adhesive designed for continuous service at temperature up to 700°F (371°C). FM 680-1 adhesive was specifically developed for radar transparent applications requiring extreme environmental durability. FM 680-1 adhesive is capable of bonding composite laminates and a wide variety of high temperature metallic substrates such as stainless steel and titanium while maintaining thermal oxidative stability. FM 680-1 adhesive is an excellent candidate for aircraft engine applications or for the bonding of new composite materials requiring co-cure or consolidation temperature up to 735°F (391°C). This adhesive is processible under standard manufacturing operations at temperatures as low as 600°F (316°C) and can handle freestanding post-cure up to 735°F (391°C). To achieve maximum performance in bonding prepared metallic details the use of BR® 680 primer is recommended. FM 680-1 adhesive is a non-aluminum-filled, condensation polyimide supported on fiberglass cloth. It is available in film, foam and paste forms. FM 680-1 adhesive utilizes the NR-150 B2 chemistry developed by DuPont.

Suggested Applications:
Titanium bonding
Stainless steel bonding
Polyimide composite bonding

General Information		
Features	Good Adhesion	
	Good Thermal Stability	
	High Heat Resistance	
Uses	Adhesives	
	Aerospace Applications	
	Bonding	
	Foam	
Appearance	Brown	
Forms	Film	
	Paste	
Mechanical	Nominal Value	Unit
Shear Strength ¹		
24°C	20.8	MPa
177°C	19.3	MPa
NOTE		

1. FM 680-1 film adhesive, 0.10 psf (490 gsm), 6Al-4V Titanium 0.05 in. (1.27 mm), Post-cure 16 hours at 600°F (316°C)

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Recommended distributors for this material

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