

Master Bond EP21NDFG Two component epoxy compound for high performance applications

Category : Polymer , Thermoset , Epoxy , Epoxy Encapsulant, Unreinforced

Material Notes:

Product Description: Master Bond EP21NDFG is a two component, room temperature curing epoxy adhesive featuring outstanding physical properties, easy processing and a non-drip, paste-like consistency. This system has a non-critical one to one mix ratio by weight or volume. EP21NDFG has the unusual characteristic of being able to adjust the properties of the cured system by altering the mix ratio. Adding more of Part A (e.g. 2:1 mix ratio) will give a more rigid cure, while adding more of Part B (e.g. 1:2 mix ratio) gives a more forgiving cure. EP21NDFG produces high strength, durable bonds which hold up well to thermal cycling and resist many chemicals including water, oils, fuels, acids, bases and salts. It bonds well to a variety of substrates including metals, composites, glass, ceramics and many types of rubbers and plastics. Once cured, EP21NDFG is an excellent electrical insulator. It is serviceable over the wide temperature range of -60°F to +250°F. The color of both Parts A and Part B is amber, although, a wide variety of additional color choices are also available. EP21NDFG is primarily used in food equipment applications where there is an indirect exposure to food and related products. **Product Advantages:** Convenient mixing: non-critical one to one mix ratio by weight or volume Variable mix ratio feature allows adjusting the type of cure (mentioned above) Easily applied; adhesive spreads smoothly; non-drip application feature Ambient temperature cures or fast elevated temperature cures as required High bonding strength to a wide variety of substrates. Lower shrinkage upon cure Excellent dimensional stability with good electrical insulation properties Meets FDA Section 175.105 for indirect food applications Information provided by MasterBond®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Master-Bond-EP21NDFG-Two-component-epoxy-compound-for-high-performance-applications.php

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	>= 70	>= 70	
Tensile Strength at Break	>= 62.1 MPa @Temperature 23.9 °C	>= 9000 psi @Temperature 75.0 °F	
Shear Strength	>= 17.2 MPa	>= 2500 psi	Al/Al, Tensile lap

Thermal Properties	Metric	English	Comments
CTE, linear	50.0 - 55.0 µm/m-°C	27.8 - 30.6 µin/in-°F	
Maximum Service Temperature, Air	121 °C	250 °F	
Minimum Service Temperature, Air	-51.1 °C	-60.0 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	
	2.92	2.92	

Dielectric Constant Electrical Properties	Metric @Frequency 60.0 Hz, Temperature 25.0 °C	English @Frequency 60.0 Hz, Temperature 77.0 °F	Comments

Processing Properties	Metric	English	Comments
Cure Time	120 - 180 min	2.00 - 3.00 hour	
	@Temperature 93.3 °C	@Temperature 200 °F	
	720 - 1440 min	12.0 - 24.0 hour	plus 2 hrs at 150-200°F
	@Temperature 23.9 °C	@Temperature 75.0 °F	
	2880 - 4320 min	48.0 - 72.0 hour	
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Pot Life	90 - 120 min	90 - 120 min	100 gram mass
Shelf Life	12.0 Month	12.0 Month	in original unopened containers
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Descriptive Properties	Value	Comments
Mixing Ratio (A to B)	1:1	by weight or volume

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