Master Bond UV15SP-1 Low Viscosity, UV Curable System

Category : Polymer , Adhesive , Thermoset , Epoxy , Epoxy Adhesive

Material Notes:

Description: Master Bond UV15SP-1 is a new one component, high strength UV curable epoxy resin based polymer system for bonding, sealing, & coating with high performance properties. It is a 100% reactive, low viscosity liquid at ambient temperatures which does not contain any solvents or other volatiles. When exposed to a source of UV light, Master Bond UV15SP-1 produces durable, strong, tough and chemically resistant coatings and adhesive/sealants with excellent electrical insulation properties. Fastest cures are obtained with light sources emitting at a wave length of 250-320 nm. Shrinkage upon cure is less than one-third that of conventional UV systems. The cured coatings and adhesive/sealants can be used over the wide temperature range of -60°F to over 300°F. Unlike many other commercially available UV curable products, Master Bond UV15SP-1 is not oxygen inhibited and exhibits a desirably fast cure rate at ambient temperatures even in the presence of air. The superior performance profile of UV15SP-1 is due to its effective cationic catalyst curing mechanism. Post curing the UV15SP-1 at 90° to 125°C for 30 minutes will give it a glass transition temperature over 125°C, far higher than conventional type UV systems. This post cure is also effective in enhancing chemical resistance, particularly to solvents. Master Bond UV15SP-1 can be cured in very short time periods, e.g. 1 minute and less, at ambient temperatures with various commercial UV lamps. A conventional 200 watt/inch medium pressure mercury lamp is recommended. Even with low intensity UV sources, cures can be obtained quickly. No solvents or other volatiles are released during the curing process. Cured coatings or adhesive/sealants are durable and tough and feature excellent adhesion to both metallic and nonmetallic substrates, from bonderized steel to Mylar polyester film. Impact strengths are high — Gardner impact measurements exceed 320 inch #. Properties of typical UV15SP-1 coatings are summarized in table #1. Storage stability of Master Bond UV15SP-1 is 6 months under the usual storage conditions in unopened containers.Information provided by MasterBond®

Order this product through the following link:
http://www.lookpolymers.com/polymer_Master-Bond-UV15SP-1-Low-Viscosity-UV-Curable-System.php

Physical Properties	Metric	English	Comments
Viscosity	100 - 130 cP	100 - 130 cP	uncured coating

Mechanical Properties	Metric	English	Comments
Gardner Impact	>= 31.1 J	>= 22.9 ft-lb	reverse
	>= 36.2 J	>= 26.7 ft-lb	face

Thermal Properties	Metric	English	Comments
Vicat Softening Point	>= 177 °C	>= 350 °F	
Flash Point	>= 93.3 °C	>= 200 °F	Cleveland Open Cup

Optical Properties	Metric	English	Comments
Refractive Index	1.517	1.517	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.60e+9 ohm-cm	1.60e+9 ohm-cm	
Dielectric Constant	2.96 @Frequency 1.00e+6 Hz, Temperature 25.0 °C	2.96 @Frequency 1.00e+6 Hz, Temperature 77.0 °F	
	3.14 @Frequency 60.0 Hz, Temperature 25.0 °C	3.14 @Frequency 60.0 Hz, Temperature 77.0 °F	
	3.52 @Frequency 1.00e+6 Hz, Temperature 100 °C	3.52 @Frequency 1.00e+6 Hz, Temperature 212 °F	
	3.76 @Frequency 1.00e+6 Hz, Temperature 150 °C	3.76 @Frequency 1.00e+6 Hz, Temperature 302 °F	
	3.91 @Frequency 60.0 Hz, Temperature 100 °C	3.91 @Frequency 60.0 Hz, Temperature 212 °F	
	4.85 @Frequency 60.0 Hz, Temperature 150 °C	4.85 @Frequency 60.0 Hz, Temperature 302 °F	
Dissipation Factor	0.0040 @Frequency 1.00e+6 Hz, Temperature 25.0 °C	0.0040 @Frequency 1.00e+6 Hz, Temperature 77.0 °F	
	0.020 @Frequency 60.0 Hz, Temperature 25.0 °C	0.020 @Frequency 60.0 Hz, Temperature 77.0 °F	
	0.023 @Frequency 60.0 Hz, Temperature 150 °C	0.023 @Frequency 60.0 Hz, Temperature 302 °F	
	0.026 @Frequency 1.00e+6 Hz, Temperature 100 °C	0.026 @Frequency 1.00e+6 Hz, Temperature 212 °F	
	0.030 @Frequency 60.0 Hz, Temperature 100 °C	0.030 @Frequency 60.0 Hz, Temperature 212 °F	

Electrical Properties	Metric	English	Comments
	0.032	0.032	
	@Frequency 1.00e+6 Hz, Temperature 150 °C	@Frequency 1.00e+6 Hz, Temperature 302 °F	

Descriptive Properties	Value	Comments
Acetone double rubs	>100	1 day
	>180	2 hours
Crosshatch Adhesion	1	
Pencil Hardness	H	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China