

## Permabond ET510 Epoxy Resin

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

### Material Notes:

PERMABOND ET510 is a two-part, 1:1 mixable epoxy adhesive. ET510 is a semi-flexible toughened epoxy adhesive with good adhesion to a variety of substrates such as wood, metal, ceramics and some plastics and composites. The product cures rapidly at room temperature reaching handling strength in 15 minutes. Once cured, Permabond ET510 has good chemical and environmental resistance. Features & Benefits: Adhesion to a wide variety of substrates Full cure at room temperature Easy to apply High shear and peel strength Good impact strength Information provided by Permabond.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Permabond-ET510-Epoxy-Resin.php](http://www.lookpolymers.com/polymer_Permabond-ET510-Epoxy-Resin.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.05 g/cc	1.05 g/cc	ET510B, Polyamine Hardener
	1.12 g/cc	1.12 g/cc	ET510A, Epoxy Resin
Viscosity	17500 cP	17500 cP	ET510B, Polyamine Hardener
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	25000 cP	25000 cP	ET510A, Epoxy Resin
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Storage Temperature	5.00 - 25.0 °C	41.0 - 77.0 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	55	55	
Elongation at Break	30 %	30 %	
Adhesive Bond Strength	8.00 - 12.0 MPa	1160 - 1740 psi	Mild steel, Shear
Peel Strength	2.80 - 3.60 kN/m	16.0 - 20.5 pli	ISO 4578

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.350 W/m-K	2.43 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	80.0 °C	176 °F	
Minimum Service Temperature, Air	-40.0 °C	-40.0 °F	
Glass Transition Temp, Tg	45.0 °C	113 °F	

Processing Properties	Metric	English	Comments
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Cure Time Processing Properties	15.0 - 30.0 min Metric	0.250 - 0.500 hour English	Handling Time Comments
	4320 min	72.0 hour	full cure
Pot Life	10.0 - 15.0 min @Temperature 20.0 °C	10.0 - 15.0 min @Temperature 68.0 °F	
Shelf Life	12.0 Month	12.0 Month	

Descriptive Properties	Value	Comments
Appearance	Amber for Polyamine Hardener Colorless for Epoxy Resin	
Maximum Gap Fill (mm)	2	
Strength Retention	10% at 150°C	Relative to 0°C
	100% at 0°C	Relative to 0°C
	30% at 100°C	Relative to 0°C
	93% at 50°C	Relative to 0°C

## Contact Songhan Plastic Technology Co.,Ltd.

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