

## Permabond TA4246 Toughened Acrylic Adhesive

Category : Polymer , Adhesive , Thermoset , Acrylic/Cyanoacrylate Adhesive

### Material Notes:

PERMABOND® TA4246 is a 2-part, no-mix, room temperature curing structural adhesive. It is ideal for use on a wide variety of substrate materials and forms a very high strength structural bond with excellent environmental durability and chemical resistance. It has high peel strength and excellent impact resistance and can be used to replace rivets or welding to give a more lightweight, durable assembly. Use with Permabond® Initiator 46. Mix ratio 10:1 (adhesive:initiator). Features & Benefits: Adhesion to a wide variety of substrates Fast cure at room temperature No mix application Very high shear and peel strength Excellent impact strength Good chemical resistance Information provided by Permabond.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Permabond-TA4246-Toughened-Acrylic-Adhesive.php](http://www.lookpolymers.com/polymer_Permabond-TA4246-Toughened-Acrylic-Adhesive.php)

Physical Properties	Metric	English	Comments
Density	1.02 g/cc	0.0368 lb/in <sup>3</sup>	uncured
Viscosity	28000 - 32000 cP @Temperature 25.0 °C	28000 - 32000 cP @Temperature 77.0 °F	Uncured
Storage Temperature	5.00 - 25.0 °C	41.0 - 77.0 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength	30.0 MPa	4350 psi	DIN 53288
Adhesive Bond Strength	33.0 - 35.0 MPa	4790 - 5080 psi	Mild steel, Shear
Impact	>= 60	>= 60	kJ/m <sup>2</sup> Adhesive Impact Strength; ASTM D950
Peel Strength	6.00 - 7.20 kN/m	34.2 - 41.1 pli	ISO 4578

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 µm/m-°C	44.4 µin/in-°F	ASTM D696
Thermal Conductivity	0.100 W/m-K	0.694 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+13 ohm-cm	2.00e+13 ohm-cm	ASTM D257
Dielectric Constant	4.6 @Frequency 1.00e+7 Hz	4.6 @Frequency 1.00e+7 Hz	ASTM D150
Dielectric Strength	30.0 - 50.0 kV/mm	762 - 1270 kV/in	ASTM D149

Electrical Properties	Metric	English	Comments
Processing Properties	Metric	English	Comments
Cure Time	2.00 - 4.00 min	0.0333 - 0.0667 hour	
	15.0 - 30.0 min	0.250 - 0.500 hour	working strength
	1440 min	24.0 hour	full cure
Shelf Life	6.00 Month	6.00 Month	
	12.0 Month	12.0 Month	if refrigerated

Descriptive Properties	Value	Comments
Appearance	Amber Liquid	Uncured
Maximum Gap Fill (mm)	0.5	
Strength Retention	100% at 0°C	Relative to 0°C
	15% at 175°C	Relative to 0°C
	22% at 150°C	Relative to 0°C
	80% at 100°C	Relative to 0°C
	96% at 50°C	Relative to 0°C

## Contact Songhan Plastic Technology Co.,Ltd.

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