

## Permabond TA4302 Toughened Acrylic Adhesive

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

### Material Notes:

PERMABOND® TA4302 is a 2-part, 1:1 toughened acrylic adhesive. It can be used to bond a wide variety of materials including metals, plastics, GRP, ceramics, wood and other substrates. It is convenient to use in an easy-to-dispense cartridge or it can be used bead on bead without a mixing nozzle. Features & Benefits: Adhesion to a wide variety of substrates Fast cure at room temperature Can be used with or without nozzle High shear and peel strength Good impact strength Good chemical resistance Information provided by Permabond.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Permabond-TA4302-Toughened-Acrylic-Adhesive.php](http://www.lookpolymers.com/polymer_Permabond-TA4302-Toughened-Acrylic-Adhesive.php)

Physical Properties	Metric	English	Comments
Density	0.980 g/cc	0.0354 lb/in <sup>3</sup>	TA4302B
	1.05 g/cc	0.0379 lb/in <sup>3</sup>	TA4302A
Viscosity	4000 - 5000 cP	4000 - 5000 cP	TA4302A
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Storage Temperature	4000 - 5000 cP	4000 - 5000 cP	TA4302B
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Storage Temperature	2.00 - 7.00 °C	35.6 - 44.6 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength	30.0 MPa	4350 psi	DIN 53288
Adhesive Bond Strength	22.0 - 25.0 MPa	3190 - 3630 psi	Mild steel, Shear
Peel Strength	3.00 - 4.80 kN/m	17.1 - 27.4 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	4.6	ASTM D150
	@Frequency 1.00e+7 Hz	@Frequency 1.00e+7 Hz	
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	3.00 - 5.00 min	0.0500 - 0.0833 hour	handling time
	15.0 - 30.0 min	0.250 - 0.500 hour	working strength
	1440 min	24.0 hour	full cure
Shelf Life	12.0 Month	12.0 Month	

Descriptive Properties	Value	Comments
Appearance	Green, TA4302B	Uncured
	Pink, TA4302A	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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