

# EXTREME BOND

## A 2-part toughened structural acrylic for bonding

### Additional Technical Information

#### Shear strength (ISO4587)\*

Steel: 24-25 N/mm<sup>2</sup> (3500-3600 psi)

Aluminium: 26-28 N/mm<sup>2</sup> (3800-4000 psi)

Peel strength (ISO 4578)

250-300 N/25mm (56-67 PIW)

Hardness (ISO868) 75-80 Shore D

Coefficient of thermal expansion (ASTM D-696)

80 x 10<sup>-6</sup> 1/K

Thermal conductivity (ASTM C-177)

0.1 W/(m.K)

Dielectric constant (ASTM D-150)

4.6

Dielectric strength (ASTM D-149)

30-50 kV/mm

Volume resistivity (ASTM D-257)

2 x 10<sup>13</sup> Ohm.cm

\*

#### Chemical Resistance

Excellent Resistance to:

- Hydrocarbons
- Acids and Bases (3-10 ph)
- Salt Solutions

#### Typical Properties of Cured Material

50% Ultimate Strength	1 Hour
Full Cure	6 Hours
Temperature Range	-35°C to 180°C
Gap Fill	3mm

#### ASTM 01002 Lapshears (Tensile Result)

Steel/steel	20-35 N/mm
Glass/Metal	16-22 N/mm
Polycarbonate *	13 N/mm <sup>2</sup>
On ABS/ABS *	8 N/mm <sup>2</sup>
* Substrate failure	<sup>2</sup>

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#### Technical Features

Part A Colour	Green
Part B Colour	Pink
Mixed Colour	Purple
Working Time	2 Minutes
Fixture Time	6 Minutes
Viscosity	3500cps
Flash Point	12°C
Specific Gravity	1.02

#### Physical Properties of Uncured Adhesive

Chemical composition

Methyl methacrylate

Methyl methacrylate

Colour Pink/Green

Mixed colour Light purple

Viscosity @ 25°C

3,000-5,000 mPa.s (cP)

3,000-5,000 mPa.s (cP)

Specific gravity 1.1 1.0

#### Suitable Substrates

Ferrites, Ceramics, Urethanes, Vinyl, Acrylics, GRP, FRP, Steel, Aluminium, St. Steel  
Gelcoats, Polyesters, Wood

#### Terminology

(1) Working/Open Time: The time interval between application of adhesive to substrate, and the possible assembly/repositioning of the two mating parts @ 20°C

2) Fixture Time: The length of time after the substrate assembly that will allow a joint to support a 1 kg dead weight. (Tested on a 12mm x 25mm overlapped joint @ 200°C)

#### Technical Notes

Extreme Bond is suitable for paint bake cycles up to 180°C for 20 minutes.

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