



# General Purpose Bonding Putty

## 16105

Technical Data

July, 2012

**Product Description** 3M™ General Purpose Bonding Putty is a medium weight, semi-resilient polyester compound with excellent bonding and cohesive strength. It has a smooth consistency and is very easy to spread. Catalyze with liquid Methyl Ethyl Ketone Peroxide (MEKP) 9% active oxygen or with Benzoyl Peroxide Paste (BPO-50).

- Features**
- Spreads smoothly and evenly
  - Excellent for bonding inner liners and bonding FRP to wood and/or FRP to FRP
  - Great for general and small part bonding
  - Excellent for bonding where bond-line thickness needs to be under 1/2 inch
  - Excellent bond integrity in damp environments
  - Can be used for filling small to medium strakes

**Product Specifications**

<b>Color and Odor:</b>	Gray compound with typical styrene odor.
<b>Viscosity @ 77°F (25°C) using Brookfield RVT, 2.5 RPM, Spindle TD:</b>	500,000 ± 600,000 cps
<b>Density @ 77°F (25°C):</b>	77.0 ± 1.5 pounds per cubic feet
<b>Weight Per Full Gallon @ 77°F (25°C):</b>	10.3 ± 0.2 pounds
<b>Uncured Stability @ 77°F (25°C):</b>	6 months
<b>VOC of unmixed material:</b>	224 g/l = 1.87 lb./gal
<b>VOC after mixing with component B (hardener):</b>	0 g/l

**Catalyzation and Gel Time**

Catalyst % by Weight	Peak Exothermic Temperature	Gel Time
1.0% BPO	190°F (88°C)	45 min
1.5% BPO	200°F (93°C)	40 min
2.0% BPO	210°F (99°C)	35 min
1.0% MEKP	200°F (93°C)	35 min
1.5% MEKP	210°F (99°C)	30 min
2.0% MEKP	220°F (104°C)	25 min

Above results were obtained using 100-grams mass of compound. Tests were conducted with compound at 77°F (25°C) and surrounding conditions at 77°F (25°C). A change in mass and temperature may vary results. Catalysts used were Norac BPO and Akzo Cadox M-50.

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### Typical Physical Properties

**Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.**

Using 1.5% MEKP Catalyzation by Weight		
Notched Izod Impact Strength	24 ft-lb/in notch	ASTM D 256-81
Heat Deflection Temperature	120°F (49°C)	ASTM D 648-72
Flexural Modulus	Approx. 130,000 psi	ASTM D 790-81
Flexural Strength	3,200 ± 200 psi	ASTM D 790-81
Tensile Modulus	Approx. 110,000 psi	ASTM D 638-82
Tensile Strength	1,500 ± 100 psi	ASTM D 638-82
Tensile Elongation at Failure	3.5 ± .5%	ASTM D 638-82
Comprehensive Modulus	Approx. 140,000 psi	ASTM D 695-80
Comprehensive Strength	3,500 ± 200 psi	ASTM D 695-80
Lap Shear Strength	1,150 ± 100 psi	ASTM D 3163-84
Linear Shrinkage	Less than 1%	ASTM D 2566-86
Overnight Shore D Hardness	60-70	ASTM D 2240-86

### Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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ISO 9001:2008

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2008 standards.



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