

# PRO-SET®

## Technical Data

# M1007~M2012

The New  
Standard

### FAST CURE FIVE-MINUTE EPOXY

EPOXIES for  
Laminating  
Infusion  
Tooling  
Assembly

#### COMBINED FEATURES

**Very fast cure speed** hardener provides approximately 3 minutes of working time at 72°F (22°C). Self supporting after 10 to 12 minutes, but not ready to be stressed.

**General purpose epoxy** for gluing or bonding applications.

**Room temperature cure** properties suitable for many composite components and structures.

**High performance** two-part epoxy adhesives for secondary bonding of laminated composites, concrete, most wood species, and some thermoplastics. PRO-SET Adhesives will bond these materials to one another in any combination.

**Shelf life** is 3 years for resin and 2 years for hardener when properly stored<sup>4</sup>.

#### HANDLING PROPERTIES

Property	Standard	Units	72°F (22°C)
100g Pot Life	ASTM D2471	minutes	2-4
Mixed Viscosity	ASTM D2196	cP	10,000
Clamps Off Cure	-	minutes	10-12
Full Cure	-	hours	6-8

#### MIX RATIO

Method	Resin:Hardener	Resin:Hardener
Weight	1.03:1	100:97.1
Volume	1.00:1	100:100.0

#### DENSITY

State	Units	72°F (22°C)
Resin	lb/gal (g/cc)	9.76 (1.17)
Hardener	lb/gal (g/cc)	9.43 (1.13)

#### MECHANICAL PROPERTIES

Property	Standard	Units	72°F (22°C) x 2 wk
Hardness	ASTM D2240	Type D	60
Compression Yield	ASTM D695	psi (MPa)	9,680 (67)
Tensile Adhesion to Ash <sup>1</sup>	ASTM D4541	psi (MPa)	1,360 (9)
Tensile Adhesion to Mahogany <sup>1</sup>	ASTM D4541	psi (MPa)	1,420 (10)
Tensile Adhesion to White Oak <sup>1</sup>	ASTM D4541	psi (MPa)	1,300 (9)
Tensile Adhesion to Yellow Pine <sup>1</sup>	ASTM D4541	psi (MPa)	1,230 (8)
Tensile Adhesion to PVC <sup>2</sup>	ASTM D4541	psi (MPa)	534 (4)
Tensile Adhesion to Lexan <sup>2</sup>	ASTM D4541	psi (MPa)	1,170 (8)
Tensile Adhesion to Plexiglass <sup>2</sup>	ASTM D4541	psi (MPa)	501 (3)
Tensile Adhesion to ABS <sup>2</sup>	ASTM D1002	psi (MPa)	1,050 (7)
Tensile Adhesion to Polyester FRP <sup>2</sup>	ASTM D4541	psi (MPa)	812 (6)
Tensile Adhesion to Aluminum <sup>3</sup>	ASTM D4541	psi (MPa)	1,220 (8)

<sup>1</sup> Sanded with 100 grit prior to adhesive application

<sup>2</sup> Sanded with 50 grit prior to adhesive application

<sup>3</sup> Sandblasted and chemical etch prior to adhesive application

<sup>4</sup> Store PRO-SET® Epoxy resins and hardeners at room temperature in sealed containers until shortly before use. As with many high-performance epoxy resins, repeated exposure to low temperatures during storage may cause the resin to crystallize. If this occurs, warm the resin to 125° F and stir to dissolve crystals. Hardeners may form carbamation when exposed to CO<sub>2</sub> and moisture in the atmosphere for extended periods of time. Prevent carbamation by protecting hardeners from exposure until immediately prior to processing.

Test specimens were neat epoxy (without fiber reinforcement).  
Typical values, not to be construed as specification.

Gougeon Brothers, Inc.  
P.O. Box 908  
Bay City, MI 48707  
prosetepoxy.com  
888-377-6738

ISO9001:2008 Certified

Rev 4 / Dec 2015

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