



Technical Data Sheet

105 System 105/207

105 Epoxy Resin® / 207 Special Clear Hardener™

General description

105/207 Epoxy is used for coating and fiberglass cloth application where an exceptionally clear, moisture-resistant, natural wood finish is desired. 105/207 is blush free and will not turn cloudy in humid conditions. Thin film applications roll out and tip off smoothly, requiring less sanding in preparation for finish coatings. Three coats or more can be applied in one day without additional surface preparation. Fewer coats are required to fill fiberglass weave and in most cases the final coating can be sanded the following day.

105/207 forms a high-strength, moisture-resistant solid with excellent bonding and barrier coating properties and is used as a structural adhesive for gluing and laminating. It has excellent compatibility with paints and varnishes. An ultraviolet inhibitor in 207 helps provide a beautiful, long lasting finish when used with quality UV-filtering varnish. It is formulated without volatile solvents resulting in a very low VOC content. It has a relatively high flash point, no strong solvent odor and does not shrink after curing.

Handling characteristics

Mix ratio by volume (300 Mini Pump ratio)	· · · · ·	3 parts resin : 1 part hardener
by weight	· · · · ·	3.64 : 1
Acceptable ratio range by weight	· · · · ·	3.41 : 1 to 4.16 : 1
Mix viscosity (at 72°F) ASTM D-2393	· · · · ·	760 cps
Pot life (100g at 72°F)	· · · · ·	22 to 27 minutes
Working time, thin film*	· · · · ·	110 to 130 minutes
Cure to a solid, thin film*	· · · · ·	12 to 18 hours
Cure to working strength	· · · · ·	1 to 4 days
Minimum recommended temperature	· · · · ·	60°F (16°C)

**Epoxy cures faster at higher temperatures and in thicker applications.*

Physical properties of cured epoxy

Specific gravity	· · · · ·	1.15
Hardness (Shore D) ASTM D-2240	· · · · ·	84.4
Compression yield ASTM D-695	· · · · ·	11,000 psi
Tensile strength ASTM D638	· · · · ·	6,748 psi
Tensile elongation ASTM D-638	· · · · ·	3.8%
Tensile modulus ASTM D-638	· · · · ·	4.40E+05
Flexural strength ASTM D-790	· · · · ·	11,300 psi
Flexural modulus ASTM D-790	· · · · ·	4.12E+05
Heat deflection temperature ASTM D-648	· · · · ·	117°F
Onset of Tg by DSC	· · · · ·	116°F
Ultimate Tg	· · · · ·	116°F
Annular shear fatigue @ 100,000 cycles	· · · · ·	9,600 lb

Storage/Shelf life

Store at room temperature. Keep containers closed to prevent contamination. With proper storage, resin and hardeners should remain usable for many years. After a long storage, verify the metering accuracy of the pumps. Mix a small test batch to assure proper curing.

Over time, 105 Resin will thicken slightly and will therefore require extra care when mixing. Repeated freeze/thaw cycles during storage may cause crystallization of 105 Resin. Warm resin to 125°F and stir to dissolve crystals.

Hardener may darken with age, but physical properties are not affected by color. If clear finishing, be aware of a possible color shift if very old and new hardener are used on the same project.

Manufactured for
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