105 Epoxy Resin / 206 Slow Hardener

General description
105/206 Epoxy is used for general coating and bonding applications when extended working and cure time are needed or to provide adequate working time at higher temperatures.

105/206 forms a high-strength, moisture-resistant solid with excellent bonding and barrier coating properties. It will wet out and bond to wood fiber, fiberglass, reinforcing fabrics, foam and other composite materials, and a variety of metals.

105/206 Epoxy can be thickened with WEST SYSTEM fillers to bridge gaps and fill voids and can be sanded and shaped when cured. With roller applications, it has excellent thin-film characteristics, allowing it to flow out and self-level without “fish-eyeing.” Multiple coats of 105/206 Epoxy create a superior moisture barrier and a tough, stable base for paints and varnishes. It is formulated without volatile solvents. It has a relatively high flash point, no strong solvent odor and does not shrink after curing. It is not intended for clear coating natural finished wood.

Handling characteristics
Mix ratio by volume (300 Mini Pump ratio) · · 5 parts resin : 1 part hardener by weight ················· 5.0 : 1
Mix viscosity (at 72°F) ASTM D-2393 ··········· 725 cps
Pot life (100g at 72°F) ············· 20 to 25 minutes
Working time, thin film* ············ 90 to 110 minutes
Cure to a solid, thin film* ·············· 10 to 15 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 ··················· 1.18
Hardness (Shore D) ASTM D-2240· ····················· 82
Compression yield ASTM D-695 ·························· 11,500 psi
Tensile strength ASTM D638 ····························· 7,300 psi
Tensile elongation ASTM D-638· ························· 4.5%
Tensile modulus ASTM D-638· ··························· 4.60E+05
Flexural strength ASTM D-790 ··························· 11,800 psi
Flexural modulus ASTM D-790 ··························· 4.50E+05
Heat deflection temperature ASTM D-648 ················· 123°F
Onset of Tg by DSC ············································· 126°F
Ultimate Tg ······················································· 139°F
Annular shear fatigue @ 100,000 cycles ················· 10,100 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. Be aware of a possible color shift if very old and new hardener are used on the same project.