



# 105 Epoxy Resin® / 205 Fast Hardener®

## Technical Data Sheet

### 105 System 105/205

#### General Description

105/205 Epoxy is used for general coating and bonding applications at lower temperatures and to produce a rapid cure that develops its physical properties quickly at room temperature.

105/205 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.

105/205 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 105/205 Epoxy create a superior moisture barrier and a tough, stable base for paints and varnishes. 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. 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 .....	5.19 : 1
Acceptable ratio range by weight .....	4.83 : 1 to 6.20 : 1
Mix viscosity (at 72°F) ASTM D-2393 .....	975 cps
Pot life (100g at 72°F) .....	9 to 12 minutes
Working time, thin film* .....	60 to 70 minutes
Cure to a solid, thin film* .....	6 to 8 hours
Cure to working strength .....	1 to 4 days
Minimum recommended temperature .....	40°F (4°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 .....	83
Compression yield ASTM D-695 .....	11,400 psi
Tensile strength ASTM D638 .....	7,900 psi
Tensile elongation ASTM D-638 .....	3.4%
Tensile modulus ASTM D-638 .....	4.08E+05
Flexural strength ASTM D-790 .....	14,100 psi
Flexural modulus ASTM D-790 .....	4.61E+05
Heat deflection temperature ASTM D-648 .....	118°F
Onset of Tg by DSC .....	129°F
Ultimate Tg .....	142°F

#### 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.

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