



# 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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