

STAR Technology

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500-03

Epoxy Surface Coat System

DESCRIPTION

STAR Technology 500-03 is a two component, thixotropic, white, general purpose surface coat designed for reproduction of fine detail. It cures at room temperature and has a creamy consistency which makes it easy to apply without sag or run off on vertical surfaces and over sharp radii. It has exceptional handling properties, going on smoothly and evenly, with no drag on the brush. When choosing any surface coat, consideration should be given to tool size, configuration, build method, and final use. Surface coat thickness of 0.030" is considered average for room temperature applications. 500-03 should be backed with a laminate using a STAR room temperature laminating system such as 510-01 or 511-01. Typical applications for 500-03 include prototypes, master models, trim fixtures, duplication splashes, Keller models, holding fixtures, patterns, and core boxes.

BENEFITS

| | |
|--------------------------|---------------------------------|
| Easy handling properties | Long term dimensional stability |
| Excellent edge coverage | Low shrinkage |
| Fast setting | Low odor-no BGE |

TYPICAL PROPERTIES (cured 7 Days at 75°F.)

| | | <u>TEST METHOD</u> | <u>VALUE</u> |
|----------------------------------|-----------------|--------------------|--------------|
| Mix Ratio, Resin to Hardener | Parts by Weight | | 100:23 |
| | Parts by Volume | | 100:22 |
| Mixed Viscosity (centipoise) | | ASTM D2393 | 40,000 |
| Thixotropic Index | | | 3.5 |
| Density (lbs./cu.in) | | ASTM D1475 | .049 |
| | (lbs./gal.) | | 11.38 |
| Pot Life at 75°F (minutes) | | ASTM D2471 | 25 |
| Thin Film | | | ~1 hour |
| Demolding time at 75°F (hours) | | | 16 |
| Cure Time at 75°F (days) | | | 7 |
| Color | | | White |
| Shore Hardness (D) | | ASTM D2240 | 87 |
| Tensile Strength (psi) | | ASTM D638 | 2,500 |
| Flexural Strength (psi) | | ASTM D790 | 7,300 |
| Flexural Modulus (psi) | | ASTM D790 | 780,000 |
| Compressive Strength (psi) | | ASTM D695 | 14,900 |
| Maximum Service Temperature (°F) | | | 180 |
| Shrinkage (%) | | | .00124 |
| Coeff or exp. (in/in/°c) | | | 1.15E-5 |

APPLICATION PROCEDURES

Carefully weigh out appropriate amounts of resin and hardener into a clean mixing container and thoroughly mix until all streaks and striations are gone. Scrape the sides and bottom frequently to ensure complete mixing.

CAUTION: Unmixed compound from the sides or bottom of the container can cause soft spots or uncured areas in the

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completed piece. To prevent this, transfer the entire mixed contents to a second clean container and remix for a short time before using.

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PRECAUTIONS

For industrial use only. Keep away from children.

Refer to the Safety Data Sheets (SDS forms) pertaining to this product before using.

Avoid contact with skin or eyes. In the event of an eye splash or contact, immediately flush with cold water for 15 minutes and contact a physician. If skin contact occurs, wash with mild soap and water. The wearing of safety glasses with side shields and impervious gloves is recommended.

RESIN WARNING STATEMENT

Warning! Causes irritation. May cause allergic skin reaction. Avoid all contact with skin, eyes, and clothing. Wash thoroughly after handling.

HARDENER WARNING STATEMENT

Danger! Corrosive. Causes burns to eye and skin. May cause allergic skin and/or respiratory reaction or sensitization. Do not get in eyes, on skin or clothing. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

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