

# STAR Technology

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## 502-01

### Epoxy Surface Coat System

#### DESCRIPTION

STAR Technology 502-01 is a two component, thixotropic, light blue surface coat designed for plastic faced plasters. It cures at room temperature in the presence of water and bonds to wet plaster. With a post cure, 502-01 may be used at temperatures up to 225°F. 502-01 has exceptional handling properties in both application and coverage on vertical surfaces and over sharp radii. 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. Typical applications for 502-01 include plastic faced plasters, prototypes, duplication models, and molds.

#### BENEFITS

Hydrophobic	Excellent adhesion to plaster
Easy handling properties	Excellent edge coverage
Low odor - no BGE	Fast setting

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

	<u>TEST METHOD</u>	<u>VALUE</u>
Mix Ratio, Resin to Hardener		
Parts by Weight		100:16
Parts by Volume		100:23
Mix Viscosity (centipoise)	ASTM D2393	100,000
Mixed Sag, Pass (inch) / Fail (inch)		1/16;1/8
Thixotropic Index		8.90
Density (lbs./cu.in.)	ASTM D1475	.0498
(lbs.gal.)		11.51
Pot Life at 75°F (minutes)	ASTM D2471	42
Demolding time at 75°F (hours)		16
Cure Time at 75°F (days)		7
Color		Light Blue
Shore Hardness (D)	ASTM D2240	86
Tensile Strength (psi)	ASTM D638	3,500
Flexural Strength (psi)	ASTM D790	6,400
Flexural Modulus (psi)	ASTM D790	613,000
Compressive Ultimate Strength (psi)	ASTM D695	13,500
Maximum Service Temperature (°F)		180
with post cure (°F)		225

To the best of our knowledge, the information contained herein is accurate. However, STAR TECHNOLOGY, Inc., does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. The information contained herein is considered typical properties and is not intended to be used as specifications for our products. This information is offered solely to assist purchaser in selecting the appropriate products for purchaser's own testing. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein and in the material safety data sheet, we cannot guarantee that these are the only hazards that exist. Repeated and prolonged exposure to epoxy resins can cause sensitization or other allergic responses.

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

#### CURING INSTRUCTIONS

As shown above, this system may be demolded after *24 to 36 hours at room temperature*. However, like most room temperature curing epoxies, it does not reach full cure until after 7 days. This can be accelerated with a mild heat cure after the part has set hard. Our recommendation is to slowly heat to *150°F, hold for two hours at this temperature*, then slowly raise the temperature to *200°F and hold this temperature for an additional four hours*. Allow to cool very slowly, so as to not thermally shock the part. Heat should be applied evenly over the entire part. Avoid heat sources that are uneven (such as heat guns or lamps), as they may cause warpage in the part.

#### 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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