

# STAR Technology

FORMULATING • INNOVATIVE • SOLUTIONS

## 600-01

EPOXY SURFACE COAT  
POLISHABLE BLACK

INTERMEDIATE HIGH TEMPERATURE USE

### DESCRIPTION

600-01 is a black intermediate high temperature surface coat especially formulated to be polishable to a high gloss. Its excellent thixotropy allows for non-sag on a vertical surface. 600-01 provides excellent reproduction of surface detail. It requires a heat cure. When cured according to the given cure schedule, 600-01 may be used continuously at 275EF and intermittently up to 325EF. It is compatible with STAR Technology laminating systems such as 610-01 and 611-01. When choosing any surface coat, consideration should be given to tool size, configuration, build method, and final use. Generally, higher temperature tools dictate the thinnest surface coat practical for the application. Typical applications for 600-01 include any application where a superb finish is desired.

### BENEFITS

Polishable to a high gloss  
No sag on vertical surface

Accurate reproduction of detail  
Intermediate high temp. properties

### TYPICAL PROPERTIES

	<u>TEST METHOD</u>	<u>VALUE</u>
Mix ratio, Resin to Hardener	Parts by Weight	100:18
	Parts by Volume	100:22
Mixed Viscosity (centipoise)	ASTM 2393	1,100,000
Density (lbs./cu. in.)	ASTM D2393	0.044
(lbs./gal.)	ASTM D1475	10.1
Pot life, 130 grams (minutes)	ASTM D2471	30
Color		Black
Cure schedule: 24 hours @ 75 °F + 2 hours @ 150 °F + 1 hour @ 200 °F + 1 hour @ 250 °F + 1 hour @ 300 °F + 2 hours @ 350 °F		
Shore D hardness	ASTM D 2240	86
Tensile Strength, psi	ASTM D638	5,400
Flexural Strength, psi	ASTM D790	14,000
Flexural Modulus, psi	ASTM D790	480,000
Compressive Ultimate Strength, psi	ASTM D695	15,300
Glass Transition Temperature (°F)	By DSC	257
Maximum Service Temperature (°F)		325

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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. Do not use a paint shaker.

NOTE: To obtain optimum service temperature follow the suggested curing schedule with thermocouple monitoring. Thermocouple monitoring is recommended on all post cured tools. Intermediate and high temperature tools must be post cured prior to use. They should be cured 50EF beyond the anticipated use temperature.

**Additional Cure Schedule:** If thermocouple monitoring equipment is not available then a longer step cure is a better choice, e.g.

*2 hours @ 150°F + 2 hours @ 200°F +  
2 hours @ 250°F + 2 hours @ 300°F +  
2 hours @ 350°F*

#### PRECAUTIONS

For industrial use only. Keep away from children.

Refer to the Material Safety Data Sheets (MSDS) 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 the eye and skin. May cause allergic skin and/or respiratory reaction or sensitization. Do not get on skin, eyes, and clothing. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

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