

STAR Technology

FORMULATING • INNOVATIVE • SOLUTIONS

604-01

Epoxy Surface Coat

DESCRIPTION

STAR Technology 604-01 is a blue-gray, abrasion resistant, intermediate high temperature surface coat especially formulated to be resistant to attack by styrene. Its excellent thixotropy allows for non sag on a vertical surface. 604-01 provides excellent reproduction of surface detail. It requires a heat cure. When cured according to the given cure schedule, 604-01 may be used in the range of 200 - 225°F. It is compatible with STAR 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 604-01 include cold molding FRP tools.

BENEFITS

Styrene resistance

Accurate reproduction of detail

Intermediate high temperature properties

Abrasion resistance

No sag on vertical surface

TYPICAL PROPERTIES

		<u>TEST METHOD</u>	<u>VALUE</u>
Mix ratio, Resin to Hardener	Parts by Weight		100:15
	Parts by Volume		100:25
Mixed Viscosity (centipoise)		ASTM 2393	164,000
Density (lbs./cu. in.)		ASTM D2393	0.057
(lbs./gal.)		ASTM D1475	13.2
Pot life, 150 grams (minutes)		ASTM D2471	30 - 40
Color			Blue-gray
Cure schedule: 24 hours @ 75EF + 2 hours @ 150EF + 2 hours @ 200EF + 4 hours @ 250EF			
Shore D hardness		ASTM D 2240	86
Tensile Strength, psi		ASTM D638	5,400
Flexural Strength, psi		ASTM D790	6500
Flexural Modulus, psi		ASTM D790	664,000
Compressive Ultimate Strength, psi		ASTM D695	14,300
Shrinkage (%)			Nil
Coeff or exp. (in/in/'c)			3.2E-5
Glass Transition Temperature (EF)		By DSC	190
Maximum Service Temperature (EF)			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. 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.

3 hours @ 150EF + 3 hours @ 200EF + 5 hours @ 250EF

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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