

# MAKOBOND SURFACE COAT 540

## PRODUCT DESCRIPTION

Makobond Surface Coat 540 is a specialized epoxy system infused with black graphite, engineered to cater to various tooling and production demands. Specifically formulated for applications requiring exposure to moderate heat, it serves as an ideal surface coat for tooling or parts. Its thin, paintable nature adheres seamlessly to contoured surfaces without dripping, thanks to its thin yet thixotropic viscosity.

Renowned for its versatility, SC 540 finds widespread adoption in the fabrication of numerous parts and structures. Its smooth spreading capabilities minimize air entrapment and facilitate the capture of intricate surface details with ease. Moreover, components crafted with SC 540 exhibit commendable heat resistance, rendering them suitable for enduring the rigors of paint bake ovens and extreme environmental temperatures in operational settings.

## PRODUCT HIGHLIGHTS

- HIGH TEMPERATURE
- EASY HANDLING
- TOOLING AND PARTS

## PRODUCT CHARACTERISTICS

|                  | SC 540A | SC 540B   |
|------------------|---------|-----------|
| Viscosity @ 25°C | Paste   | 1,700 cps |
| Specific Gravity | 1.20    | 1.09      |
| Color            | Black   | Amber     |

## HANDLING PROPERTIES

| Surface Coat 540                     |               |
|--------------------------------------|---------------|
| Mix Ratio By Weight, Resin, Hardener | 100:13        |
| Mixed Viscosity @ 25°C               | Thin Paste    |
| Pot Life @ 25°C                      | 45-55 minutes |

## PHYSICAL PROPERTIES

|   | Results   | ASTM Method |
|---|-----------|-------------|
| Cured Hardness (Shore D)                | 87-90D    | D2240       |
| Tensile Strength (psi)                  | 6,580 psi | D638        |
| Glass Transition Temperature, Tg, (DMA) | 275°F     | D4065       |

## HANDLING AND CURING

Measure out the proper weights of SC 540 and mix until uniform and no streaks are present throughout. Be sure to scrape the sides and bottom on mixing container to avoid any unmixed material. SC 540 will cure at room temperature but does need a post cure. Follow the post cure schedule of the laminate resin being used.

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### PACKAGING WEIGHTS

|            | Quart Kit | Gallon Kit | Pail Kit |
|------------|-----------|------------|----------|
| SC-540A    | 2 lbs     | 9 lbs      | 45 lbs   |
| SC-540B    | 0.26 lbs  | 1.2 lbs    | 5.9 lbs  |
| SC-540 Kit | 2.26 lbs  | 10.2 lbs   | 50.9 lbs |

### STORAGE AND SAFETY

Makobond SC 540 has a shelf life of 12 months from date of shipment when unopened and stored at ambient temperatures, (18-27°C). Nitrogen purging opened containers is recommended before re-sealing. SC 540B may darken over time, but this will have no effect on any finished product. Users need to exercise proper care while working with material; gloves, eyewear, and proper ventilation are recommended. Warning: All thermosetting matrix systems undergo exothermic reaction during vulcanization and/or curing, generating heat. If not properly managed, exothermic reactions may release possibly flammable or toxic gases into the surrounding. Users should exercise extreme caution when blending large volumes of ingredients (ie greater than 1 lb), and/or curing thick sections of components (typically greater than 0.200 inches). Users should monitor heat profiles of any curing or blended materials carefully and attentively during cure. Please contact a Mako team member with any concerns prior to use and/or to coordinate the proper management of safety and temperature monitoring process to avoid exothermic phenomena.