Duratec Sunshield Clear Top Coat

Part # - 1045

High Gloss Clear Top Coat for Epoxy Parts

Duratec® Sunshield Clear Top Coat is a specially formulated polyester topcoat that offers you excellent gloss levels and UV stability. #1045 is compatible with epoxy, vinyl ester and polyester resins. It can be applied to epoxy laminates as an in-mold or post-mold coating. It offers a durable surface and has great scratch resistance. Sunshield offers excellent anti-yellowing, making it a perfect coating for epoxy or vinyl ester parts. It offers a fast build for a smooth and pit-free surface, reducing cycle time and labor.

Requires 2% MEKP.

Description
1045 Duratec Sunshield Clear Top Coat is specially formulated for use as an in-mold or post-mold top coating for carbon fiber and epoxy laminates. It is also suitable for use with polyester and vinyl ester resins.

Uncured Properties

(All properties based on 2% MEKP)

Gel time @ 77°F	20 minutes
Viscosity @ 77°F (#2 Spindle@ 20 rpm)	450 cps
Thix index (2/20)	minimum 3.0
Weight per gallon	8.85 lbs.
Coverage @ 10 mils, wet	110-115 sq. ft/gal*

Actual transfer efficiency affected by overspray, shrinkage and heat transfer.

Features & Benefits
- High Gloss
- Excellent abrasion resistance
- Superior hardness
- Exceptional craze resistance
- Minimum Distortion

Mixing Directions
Shake well before using. To initiate hardening add part add PART #69 MEKP HARDENER in a ratio of 2%. For easy measure, use 2 teaspoons of hardener per pint (pound) of resin or 4 teaspoons per quart. For very small quantities use 25 drops of hardener per ounce of resin. Measure the components, do not guess at them.
At a temperature of 77˚F the resin will begin to harden in about 20 minutes and be ready for applying reinforcements in about one hour. At cooler temperatures the mixture will take longer to harden and at warmer temperatures it will take less time. The ratio of hardener may be adjusted to compensate for temperature extremes; add up to 50% more hardener when cooler and correspondingly less when warmer.
Do not apply when temperatures are below 60˚F. Mix only small quantities when the temperature is about 85˚F as hardening will occur very rapidly. Never apply in direct sunlight. Mix in clean glass, paper, plastic or metal containers. Do not use foam containers. Mix no more than you can use before the resin will begin to harden, and thereafter let your experience guide you. Do not return mixed (catalyzed) gel coat to container.
Clean tools with #9 PURE VIRGIN ACETONE or lacquer thinner.

Fibre Glast Developments Corporation
385 Carr Drive
Brookville, Ohio 45309
Phone – 800.214.8579
Fax – 937.833.6555
www.fibreglast.com

Surface Preparation

For post-mold applications, sand the entire surface with 180 grit sandpaper, proving a mechanical tooth. With epoxy laminates, water washing with clean water and a Scotch-Brite pad is necessary before and after sanding. It is not necessary to water wash polyester or vinyl ester laminates. After sanding, remove all dust and acetone-wipe the surface prior to application. Mold surfaces should be prepared as instructed by the mold release manufacturer.

Application Tips

Sunshield is not applied like traditional gel coat. To apply, spray a light mist coat (or dust coat), that must set up for two minutes before further application. The dust coat should be a light fog, not a continuous film. Additional coats of 4-5 mils can be applied, again allowing a minimum of two minutes to out-gas. 12-15 mils will provide a nice finish with UV protection. Up to 22 mils can be applied if the part requires aggressive post sanding.

For laminates with severe porosity, the first 2-3 mil pass can be worked with a squeegee to fill the holes. Additional coats can be applied after two minutes and while the surface is tacky. The final spray should be sanded with 400 grit and allowed to cure, for 8 hours prior to the final polishing.

After curing, wet sand with sandpaper grits from 400-1500. Because of the tough, scratch resistant nature of the Duratec Sunshield, regular automotive compounds may not be aggressive enough to remove sanding scratches. For final polishing we recommend our Step 1 & 2 Mold Polish

Problems

- Dullness: Dull mold surface, insufficient catalyst.
- Slow Gelatin: Cold mold surface, insufficient catalyst, gel coat too thin.
- Pinholes: Initial pass to heavy, insufficient atomizing pressure.
- Wrinkling: Cold mold, insufficient catalyst, insufficient gel coat thickness.
- Glass Pattern Print-Through: Gel coat too thin, cold mold, insufficient catalyst.
- Sagging: Excessive gel coat, insufficient atomization.
- Lifting of Gel Coat From Mold: Too much catalyst, mold too warm, gel coat applied too thick.

Safety & Handling

#1045 Duratec Sunshield Clear Topcoat contains ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn. Individuals should wash with soap and water before eating, or drinking. Individuals should observe conditions of good industrial hygiene and safe working practice. For more detailed instructions on handling please see the MSDS Sheet.

All containers should be properly labeled to prevent accidental ingestion or improper disposal. Individuals should reseal any partly used material back in the container. Store #1045 Duratec Sunshield Clear Topcoat at 73°F, in dry conditions away from open flames and high temperatures. For more detailed instruction on storage please see the MSDS Sheet.

Fibre Glast Developments Corporation
385 Carr Drive
Brookville, Ohio 45309
Phone – 800.214.8579
Fax – 937.833.6555
www.fibreglast.com