



## #1041-B Duratec Gray Surfacing Primer

### Usage:

For composite plugs and patterns and to prime a growing number of wood products – including furniture, musical instruments and architectural applications.

### Features

All in one coat! Duratec Polyester Surfacing Primer provides rapid coat buildup and a smooth surface with high gloss, when required.

1. Low Porosity – provides a super fine leveling and filling system on a variety of substrates with superior release properties.
2. Adhesion to Most Epoxies – with heat distortion level of 201 degrees F, the primer also adheres to fiberglass, properly prepared metal, wood, MDF, brick, concrete and polyurethane foam
3. Rapid Coat Buildup – to 40 mils, 1000 microns, wet on wet, on composite plugs and master mold surfaces; saves time and labor costs.
4. Easy Sanding – also saves time and labor. The primer cures to a surface that polishes to a high gloss, when required.

### Product Properties

<b>Viscosity</b> - As measured on a Brookfield Viscometer Model RVF, Spindle #5 at 2.5 rpm.	<b>2700 CPS</b>
<b>Thixotropic Index</b>	<b>5</b>
<b>Gel Time</b> - Sample based on a 100 g mass, catalyzed at 2 percent with MEKP	<b>16-18 min</b>
<b>Weight per Gallon</b>	<b>10.9 lbs</b>
<b>Volatile Organic Compounds</b>	<b>199 g/l</b>
<b>Coverage per Gallon:</b> <b>10 mil thickness</b>	<b>110-115 sq ft</b>

## **APPLICATION GUIDELINES**

### **Application Conditions:**

The surface should be clean, dry and free from oil, grease, wax or other contaminants. Ambient temperature should be in excess of 60 degrees F, or 16 degrees C to ensure a rapid and complete cure. Time calculations are based on temperatures of 77 degrees F.

## **SURFACE AND PRODUCT PREPARATION**

Starting from a correctly shaped and dimensionally stable plug, sand the entire surface with a coarse sandpaper (80-120 grit), making sure to feather in puttied and filled areas. Wipe the sanded surface with a fast solvent and a clean white cloth or paper towel. Do not use a tack rag.

Thoroughly stir Duratec Polyester Surfacing Primer in the can prior to catalyzing. Due to the rapid gel time of the primer, mix only the amount that can be applied within 16-18 minutes. (Higher temperatures yield a shorter pot life and gel time, while lower temperatures yield a longer pot life and gel time). Catalyze at 2% with MEKP catalyst. Thin 10-30% if necessary to a desired spray viscosity with a fast acrylic lacquer thinner after catalyzation.

## **APPLICATION PROCEDURES**

(Note: Spray pressures should be 35-50 psi. If a pressure pot is used, provide 10-15 psi pot pressure.)

Apply a "tack coat" to the entire surface and allow it to flash for 2 minutes. Follow with wet passes, slowly building to the desired thickness (10-40 mils). Heavier thickness can be achieved by repeating the process immediately after gel has occurred. The primer will be dry to the touch in 1-4 hours, depending on the thickness and temperature, and ready to sand within 24 hours.

Dry sand the entire surface with 80-120 grit sandpaper. Wipe the surface with fast solvent and a clean white cloth or paper towel. Do not use a tack rag. Wait overnight for the solvent to release and complete cure to develop. Again spray the primer as directed.

If an even higher gloss is desired, blend the primer one-to-one with Duratec Polyester Clear Hi-Gloss Additive (#01040-B), thin with a fast acrylic lacquer thinner and spray to the desired thickness following equipment directions. Sand to a 600 or higher grit finish. (Note: For best results, after sanding, wait overnight before compounding and polishing the surface.)

Remove scratches with #01102 Polishing Compound and polish with #01103 Polishing Compound for a glossy, swirl mark-free finish. No surface cleaning is necessary prior to the application of release materials.

## **FREQUENTLY ASKED QUESTIONS**

**Q:** Can this primer be applied with a brush or roller?

**A:** It can be applied that way, but a better finish will be achieved by spraying.

## **SAFETY PRECAUTIONS:**

Duratec Polyester Surfacing Primer is extremely flammable. Do not spray near sparks, open flame, or heat. Keep area ventilated. Do not smoke. Avoid continuous breathing of vapor or spray mist. Do not take internally. See MSDS for more details.

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
<b>Alligatoring</b>	Not enough catalyst used	Check for proper catalyst levels
	Substrate/primer incompatibility Chemical reaction	Check compatibility of surface and product
	Primer sprayed on cold surface	Expose surface to higher Temperature before spraying When ambient temp if below 60°
<b>Blisters</b>	Substrate not cured, Gassing underneath primer	Completely cure putties, pastes and compounds before applying primer
<b>Cracking</b>	Primer spray too thickly, too fast	Increase the number of passes, adding dwell time between coats. For exceptionally thick buildup, allow for gel to occur before spraying further.
<b>Dimples (craters)</b>	Film buildup too rapid, solvent trapped in primer.	Increase the number of passes to achieve desired thickness. Allow for "flash off" between passes.
<b>Dry over-spray</b>	Acetone used as thinner.	Use slower solvent such as a fast acrylic lacquer thinner.
	Spray gun orifice too small.	Use larger orifice.
	Spray pressure too high.	Set line pressure at 35-50 psi.
<b>Fisheyes</b>	Substrate contaminated.	Do not use a "tack rag", slow evaporating solvent
	Contamination in the air	Spray in a clean area to minimize airborne dust, water, waxes, and/or silicones.
	Contamination in the air line	Spray with dry filtered air.
<b>Gelling in the Container</b>	Outdated product	Replace with new primer
<b>Lifting or Peeling</b>	Substrate not cured or substrate/primer incompatibility	Completely cure putties, pastes, and compounds before applying primer. Check compatibility of surfaces and products.
<b>Orange Peel</b>	Spray equipment set up incorrectly	Follow the instructions for equipment set up.
	Spray pressure incorrect.	Set pressure at 35-50 psi
	Pot pressure incorrect.	Set pressure at 10-12 psi.
	Viscosity too high	Thin with fast acrylic lacquer thinner.

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
<b>Pattern surface sticks to mold upon release.</b>	<p>Improper release preparation</p> <p>Primer not fully cured before compounding and polishing</p> <p>Excessive gel time for tooling gel coat.</p>	<p>Follow manufacturer's instructions when applying release materials.</p> <p>Follow instructions above for pattern surfacing.</p> <p>Follow manufacturer's recommendations for gel time.</p>
<b>Pinholes</b>	Substrate Porosity	Fill porous areas with product using squeegee, brush or roller before spraying
<b>Plug/Pattern surface not hard or glossy</b>	<p>Primer not allowed to "breathe" after sanding.</p> <p>Surface wet sanded when under cured; primer absorbed water.</p> <p>Ambient temperature under 60 degrees F when sprayed</p> <p>Low reactivity catalyst used.</p>	<p>Allow time for solvents to escape before compounding and polishing</p> <p>Dry sand with initial sanding step. Wet sand after breathing occurs.</p> <p>Expose surface to higher temperature before spraying.</p> <p>Do not use a catalyst with less than 8.8 percent active oxygen.</p>
<b>Plug/Pattern surface loses porosity</b>	<p>Primer not fully cured prior to compounding and polishing</p> <p>Spray pressure too high</p> <p>Spray orifice too small.</p> <p>Acetone used as a thinner.</p>	<p>Dry sand with initial sanding step. Wet sand after "breathing" occurs.</p> <p>Reduce pressure to 35-50 psi</p> <p>Use larger orifice.</p> <p>Use a fast acrylic lacquer thinner.</p>
<b>Print through (developed during mold building) transfers to mold.</b>	<p>Putties, pastes and compounds under primer not fully cured</p> <p>Putties, pastes and compounds post-shrink with exposure to excessive exotherm</p> <p>Exposure to excessive exotherm during mold building</p>	<p>Completely cure putties, pastes and compounds before priming.</p> <p>Qualify putties, pastes and compounds for acceptable heat distortion temperatures.</p> <p>Maintain exotherm below 200 degrees F during mold building.</p>