

Duratec® Products Application Guide

Surfacing Clay Models and Patterns

Duratec Polyester Surfacing Primer
Duratec Polyester Hi-Gloss Coating (Pigmented).

Use Duratec Polyester Surfacing Primer and Hi-Gloss Coating to rapidly create a "Class A" finish on clay models and patterns.

Application Conditions

Ambient temperature should be in excess of 60°F, 16°C to ensure a rapid and complete cure. Time calculations are based on temperatures of 77°F, 25°C.

Surface and Product Preparation - Surfacing Primer

After the clay has been properly steeled and slicked, spray a water based adhesive onto the surface and allow it to dry for one hour. Follow by spraying a water-based primer (acrylic or latex) to a thickness of 20 mils, 500 microns, and, when cured, sand with 120 - 180 grit sandpaper.

Thoroughly stir the Duratec Polyester Surfacing Primer (#707-002, Gray) in the can prior to catalyzing. Due to the rapid gel time of the primer, mix only the amount that can be applied in 15 - 17 minutes. (Higher temperatures yield a shorter pot life and gel time.) Catalyze at 2 percent with full strength mekP catalyst (80 cc per gallon). Thin if necessary with a fast acrylic lacquer thinner or methyl ethyl ketone solvent after catalyzing.

Application Procedures - Surfacing Primer

Spray or brush Duratec Polyester Surfacing Primer onto the primed and sanded surface to the desired thickness, up to 40 mills, 1000 microns, wet on wet. Sand to a smooth finish. Wait overnight for a complete cure to develop prior to compounding and polishing. Use Aqua-Buff® 1000W Fast-Cut compound and Aqua-Buff 2000 Compound/Polish to achieve a glossy, swirl mark free finish. (Note: do not overheat the surface with the buffing pad, as excessive heat will soften and possibly distort the clay.) Apply the desired mold release system.

Surface and Product Preparation - Hi-Gloss Coating

For an even glossier surface, sand the primer with 180 grit sandpaper and wipe with dry cloth. Do not use a tack rag. Catalyze Duratec Polyester Hi-Gloss Coating (#602-021, Black or (#608-021) Orange) at 2 percent with full strength mekP catalyst (80 cc per gallon) for a 15 - 17 minute pot life. Thin if necessary with a fast acrylic lacquer thinner or methyl ethyl ketone solvent after catalyzing.

Application Procedures - Hi-Gloss Coating

Spray Duratec Polyester Hi-Gloss Coating up to 10 mils, 250 microns, thickness with multiple wet passes. Sand to a smooth finish. Wait overnight for a complete cure to develop prior to compounding and polishing. Use Aqua-Buff® 1000W Fast-Cut compound and Aqua-Buff 2000 Compound/Polish to achieve a glossy, swirl mark free finish. (Note: do not overheat the surface with the buffing pad, as excessive heat will soften and possibly distort the clay.) Apply the desired mold release system.

SAFETY PRECAUTIONS: Duratec Polyester Surfacing Primer and Hi-Gloss Coating are extremely flammable. Do not spray near sparks, open flame or heat. Keep area ventilated. Do not smoke. Avoid continuous breathing of vapors or spray mist. Do not take internally.

Product Numbers:

Surfacing Primer 707-002 Gray
Hi-Gloss Coating 602-021 Black
Hi-Gloss Coating 608-021 Orange.