PRODUCT DATA SHEET

FORMULA FIVE® Mold Sealer

General Product Information

FORMULA FIVE® Mold Sealer is a semi-permanent base coat designed for use on most mold or plug substrates including composite (FRP/GRP[1]), aluminum and steel. Seals the mold surface and fills micro-porosity to create a smooth, streak free high gloss surface. Recommended for most molding processes including contact molding, hand lay up, spray up, cast polymer and closed molding. Particularly recommended for use in new composite mold initialization, sealing reconditioned or repaired areas of previously seasoned molds, and as a base coat to optimize the performance of semi-permanent top coats. Also recommended as a mold sealer with sacrificial mold release systems such as wax, polymeric, spray or wipe on slip coat mold releases. Simple wipe on leave on application. For application to molds at temperatures of 70 - 150 °F (21 - 66 °C) and suitable for molding process temperatures up to 500 °F (260 °C).

NOTE: The cross-linking resins used in FORMULA FIVE® Mold Sealer cure by hydrolysis (interaction with moisture in the atmosphere) and temperature. Recommended storage is in original containers tightly sealed avoiding extreme temperatures. Decant the amount of material expected to be used into HDPE containers with a positive closure just before use. Do not return air exposed release back into original container.

[1] FRP/GRP = Fiber Reinforced Polymer or Plastic / Glass Reinforced Plastic or Polyester

Preparing Mold Surface

FORMULA FIVE® Mold Sealer is ready to use as received with no mixing or agitation necessary. Must be applied to a clean surface to perform properly. Clean mold thoroughly with FORMULA FIVE® Mold Cleaner according to instructions or, if necessary, by compounding followed by warm water/detergent wash and followed by FORMULA FIVE® Mold Cleaner. If release agents containing wax or silicone have previously been used on the mold, apply FORMULA FIVE® Wax Stripper according to instructions. Polish to desired level of gloss prior to application of FORMULA FIVE® Mold Sealer. Use tape test[2] at several places on molding surface to verify cleanliness.

[2] Use good quality 3/4 or 1 inch (18 - 24 mm) wide general-purpose masking tape such as Scotch® Performance Masking Tape 234. Always use the same tape so the feel of its standard removal becomes familiar. Apply a piece of tape about 8 inches (20 cm) in length and burnish to the mold. Pull the tape up at a 90-degree angle to the surface. When testing a mold surface that has properly applied mold release, very little resistance should be felt. Perform tape test at different areas of mold to ensure cleanliness or proper mold release application.

Directions for Use

Consult Material Safety Data Sheet (MSDS) prior to use. FORMULA FIVE® Mold Sealer should always be used in a well-ventilated area with appropriate personal protection equipment, including solvent resistant gloves and eye protection.

Using a clean dry lint-free cloth or high quality paper towel, wet but not dripping with FORMULA FIVE® Mold Sealer, gently wipe mold surface covering up to 5 square feet (0.5 meter^2) at a time. Do not reuse cloths after drying as they will be contaminated with partially cured polymers that will cause streaking. Never pour mold sealer directly on mold. Reapply mold sealer to cloth frequently during application. Wipe away any pooling, do not over wipe or apply excess material.

Repeat on neighboring areas, overlapping to ensure complete coverage, until mold surface is completely covered. After solvent carrier dries allow 15 minutes for mold sealer to cure. Apply at least one additional coat of FORMULA FIVE® Mold Sealer following the same procedure. A minimum of two coats are required before applying mold releases. Allow last mold sealer coat to cure for 30 minutes before applying a mold release. No buffing or polishing is necessary. Best practice for new, reconditioned or repaired areas of previously seasoned molds is to apply a minimum of 4 coats of mold sealer, allowing 30 minutes cure time for each coat and a minimum final cure time of 60 minutes.

FORMULA FIVE® Mold Sealer will perform very well at application temperatures of 70 °F (21 °C) and above, but curing at temperatures above process or part resin exotherm temperature makes a more durable release base coating. Multiple coats and longer curing times between mold sealer coats and for final cure will also make a more durable base.

1 GALLON (3.79 LITER) JERRICAN AND 55 GALLON (208.2 LITER) DRUM

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