

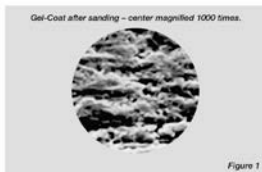


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TR-100 SERIES RECOMMENDED PROCEDURES MOLD RELEASE WAX PREPARATION GUIDE POLYESTER MOLDED PARTS

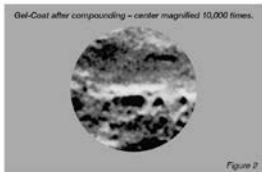
1. Sanding:

The initial step in surface preparation should begin after a minimum two week curing period. Grit selection will be determined by the smoothness and condition of the original surface. Progressively finer grit is employed until 600-1200 wet and dry imparts a smooth, satin finish as seen here in figure 1. Note: Various compound grit sizes should not be equally compared or confused to sandpaper grit size. Different results are obtained with compound by its buffing action and techniques.



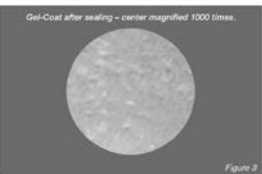
2. Compounding:

The fine scratches left from the sanding are now removed with a machine buffer and **TR-311 Buffing Compound**. It is important to buff the entire surface, bringing it to a reflective sheen (as seen in Figure 2) since previous residue and microscopic imperfections must be removed. Deeper sanding marks and dull spots may require initial buffing with **TR-309 Regular Compound** followed by **TR-311 Liquid Compound** for final finish gloss and smoothness.



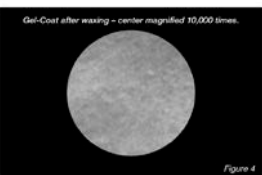
3. Sealing:

With a machine buffer and clean pads (keep clean to avoid unnecessary scratches) apply two coats of **TR-301 Sealer Glaze**. This application further removes fine scratches, fills in and closes over minute porosity, and produces a high gloss, reflective surface (see Figure 3) which is ideally receptive to wax. Each coat should be buffed in opposite directions; once vertically and once horizontally, to insure complete coverage. Alternate sealing option is use of **TR-910 Semi-Permanent Mold Sealer**.



4. Waxing:

Apply TR Mold Release Paste Wax using a circular, overlapping motion. The area being waxed should appear moist, or wet, to assure good coverage. Hand buff with a clean, dry cloth to obtain a final high-gloss finish. **TR-100 Gold, TR-102 and TR-104 Hi-Temp** should dry thoroughly (5-10min @ 77°F) before removing (polishing wipe). When using **TR108**, hand buff immediately. Do not allow **TR-108** to set or dry before wiping.



NEW OR RECONDITIONED MOLDS POLYESTER TOOLING

1. Additional Waxing:

On a new or reconditioned mold (i.e. one polished and cleaned with compounds) follow **Step 4 on Page 1**. Proceed with four or five additional coats of **TR Mold Release Paste**. Wait one hour or more between coats to permit solvent evaporation and the Carnauba base to set. Best results when the wax application is allowed to stand overnight prior to gel-coat application. Use caution against any mold surface contamination or marring. Longer wax set time is required with lower temperature.

This longer cure time may be reduced by heating the mold slowly to approximately (100°F/38°C –125°F/52°C). Cool slowly and hand buff again. Apply one or two coats of TR Mold Release Paste and buff to a high gloss then proceed with initial layup. With intricate or complex parts, a PVA parting film is insurance against hang-ups for the initial release. Be sure to avoid hot layups on the first few parts.

Note: All fiberglass molds should be adequately cured (normally two weeks at room temperature 77°F) or per manufacturer's recommendations on the gel-coats and resins.

2. Re-apply:

After initial layup, re-release with one coat of **TR Mold Release Paste** after each pull, for the first four or five parts. This conditioning period allows the exothermic heat to diffuse the wax compound thermally down into the gel-coat for a complete seal.

PRODUCTION MOLD MAINTENANCE

1. Periodic Mold Cleaning:

The most popular method for good mold maintenance is to continue using **TR Mold Release Paste** after the conditioning period, gradually extending the number of parts between waxing. Release patterns vary considerably with most companies. The number of parts between waxing can vary from one to as many as 3-4 parts released. This variance is dependent upon several factors; solvent content in the gel-coat, exothermic heat generated from the layup or mix, complexity of the mold design, etc. Watch closely for the first sign of styrene /wax buildup. This is where quality is maintained and mold life is greatly extended. When the first dullness or haze appears, apply a small amount of **TR-502 Wax Buildup Remover** and machine buff back to a high gloss finish. Apply two coats of **TR Paste Wax** and the mold is ready for the production line. Molds have remained in high production for as long as five years using this method. Where the complexity of mold design precludes using a machine buffer, hand rub with **TR 210 Self-Stripping Liquid Mold Release** in place of **TR-502 Wax Buildup Remover**.

2. Liquid Wax Mold Release:

Another method that also produces excellent results employs **TR-214 Regular Liquid Mold Release**, **TR-210 Self-Stripping Liquid Mold Release** or **TR216 Hi-Temp Liquid Mold Release**. Although these releases were designed for non-skid or detail-type mold areas to avoid fill-in from paste releases, they are commonly used in place of paste release after a mold is well conditioned. Useful on large molds or high production lines since application time is reduced. Use of cotton cloth is recommended for even, complete coverage. Spray apply method can also be used. The mold should appear wet or moist during application. Allow to dry before removing (polishing) with a clean, soft cloth or by soft brushing in non-skid areas. If high gloss finish is not desired the polish step can be omitted. Allow solvents to flash and air dry completely. To speed drying, use of compressed air will facilitate solvent evaporation.