



Chemlease® PMR + PMR-90

Semi-permanent release agent

Description

Chemlease® PMR series products are unique semi permanent mold release system developed specifically for the polyester molding industry.

Benefits

- Multiple releases between applications
 - Provides excellent gloss
 - Easy to apply
 - High temperature stability
 - Eliminates the use of wax
 - Does not build up on the mold surface
 - Reduces labor time and costs
 - Does not transfer to molded part
- Chemlease® solvent carriers contain no Class I or II registered ozone depleting substances

PMR Series Products:

Chemlease® PMR

High gloss, Class A mold release for the polyester/composite molder. Suitable for 98% of molding applications.

Chemlease® PMR - 90

Highest slip version of PMR; primarily for closed molding of abrasive, low draft parts, where a quality finish is still required.

Mold Preparation

1. Mold surfaces should be thoroughly cleaned to remove all traces of wax, release agents, sealers and buffing compounds.
2. Do a final cleaning of mold surface with Chemlease® Mold Cleaner EZ.
3. Seal mold with Chemlease® 15 Sealer. (See 15 Sealer Technical Data Sheet for details)

Application for basic coats:

1. Mold surface must be thoroughly cleaned to remove all traces of wax, release agents, and other sealers.
2. Surface should be dry and free of contaminants.
3. Saturate a clean 100% cotton cloth (we recommend Chemlease® Cotton Cloth) and wipe on a smooth continuous film. Apply no more than a few square feet at a time.
4. Wait 15-20 seconds. While film is still wet, wipe the surface with a second clean dry cotton cloth using a circular motion from the outside, working inwards until film is left dry and clear.

5. Repeat above procedures until entire mold surface has been covered.
6. Apply 4-5 coats, allowing 10 minutes between each complete coat.
7. Allow 20-30 minutes for full cure. Proceed with production.

Notes:

Time will vary with room and mold temperature. Wipe off as the solvent begins to evaporate. If the release agent is left on too long, you may notice some smearing or streaking. To remove the smear or streak, rub the affected area with the recommended Chemlease® release agent, then simply remove the excess sooner than you had before.

Test to ensure proper application:

Attach a small strip of masking tape to different areas of the mold. There should be very little resistance when removing the tape if proper release is applied. Compare to an untreated mold. (Tape should adhere to untreated mold).

Touch up Coats:

Once in production the release film will begin to wear. Rather than applying a touch-up coat once the parts begin to stick, it is better to do preventative maintenance. For example, if trials determine that 20 releases are obtainable between touch-up coats, it is better to reapply a touch-up coat after every 15 cycles or at the end of every second shift if you are, for example, turning the molds 8 times per shift. The above described action will keep the molds in production longer and help establish a routine of quality preventative maintenance.

Coating patch repairs:

Prior to repairing a patch, make sure the release is removed for 3-4 inches around the area to be repaired. Note: Semi permanent releases must be removed with mild abrasion as well as a solvent wipe. If not, the patch will not bond to the surface and break out. Once the patch is cured, treat the area as a new mold:

1. Clean with Chemlease® Mold Cleaner EZ;
2. Apply Chemlease® 15 Sealer and cure per instructions;
3. Apply 5 coats of PMR release agent and cure.

Touch up the patched area with PMR every other cycle for the first 4-6 releases.

Remember, the patch is weaker than the rest of the mold and will require extra attention for the first few cycles.



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Further, a touch-up coat (other than patch repair) should usually be done over the whole mold. This prevents having to re-touch another area that is wearing on the next cycle. However, there may be some areas of surface draft, etc. That may require a touch up more frequently. For example:

- Touch up complete mold every 16 cycles;
- Touch up small areas with difficult draft angles every 8 cycles.

The PMR is designed to blend into itself very easily and operator experience will quickly determine the number of cycles between spot and complete touch-up. For a spot touch-up, only the 10-minute room temperature cure time is needed.

Whenever the mold is stripped, reapply 15 Sealer and/or the PMR base coats as described.

"Important

The recommended number of coats and cure times are a general guideline found to be more sufficient in a broad spectrum of molding conditions. When molding products with extreme geometries or experiencing low-humidity conditions in the shop, the customer may find the need to extend the cure time between coats and increase the number of coats applied to the mold. The efficiency of a release film is best determined through a combination of tape tests and experimentation."

Storage

It is important that the materials be left in the factory containers as the product is susceptible to moisture contamination if the container is left open or the material is stored in the wrong type of container. The material should always be clear.

Do not use, if the use-by date has been exceeded.

Handling

We believe Chemlease® PMR series products have a low degree of hazard when used as intended. For more information, request a copy of Chem-Trend's Material Safety Data Sheet.

Packaging

Product is available in a variety of packaging. Please contact our customer service team for details.

Further Information

Request information on our complete range of materials for this industry.

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