Chem Trend
Release Innovation™

PRODUCT DATA

Chemlease® PMR Series

Mold Release System

Description

Chemlease® PMR is a 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
- Minimal 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.
3. Seal mold with Chemlease® 15 Sealer. (See Chemlease® 15 Sealer Product Data Sheet).

Application for Base 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 cotton cloth (not dripping) 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. See Notes below.
5. Repeat above procedures until entire mold surface has been covered.
6. Apply 4-5 coats, allowing 10 minutes between each coat.
7. Allow 20-30 minutes for full cure. Proceed with production.

NOTE:
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, and 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 touchup 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 touchup coats, it is better to reapply one touchup 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 action described above 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 thoroughly from 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 patch area as a new mold:

1. Clean with Chemlease® Mold Cleaner two times or more to remove compounds, etc.
2. Apply Chemlease® 15 Sealer and cure per instructions;
3. Apply five coats of Chemlease® PMR-90 release agent and cure.

Touch up the patched area with Chemlease® 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. Further, a touchup coat (other than patch repair) should usually be done over the whole mold. This prevents having to retouch 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.

Chemlease® PMR is designed to blend into itself very easily and operator experience will quickly determine the number of cycles between spot and complete touchup. For a spot touch-up, only the 10-minute room temperature cure time is needed. Whenever the mold is stripped, reapply Chemlease® 15 Sealer and/or the Chemlease® PMR base coats as described.

Important
The recommended number of coats and cure times are a general guideline found to be more than 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.

Packaging

Chemlease® PMR is available in 1, 5, and 55 gallon containers. 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. If cloudiness is detected, contact your Chemlease® technical representative.

Safety Data

Material Safety Data Sheets are available for all Chemlease® products and should be consulted prior to use of this product.

www.chemtrend.com

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