



Zyvax® MPP 1018

Mold Prep and Primer

Description

Zyvax® MPP 1018 is formulated for sealing tooling in both the FRP and advanced composites sectors. Appropriate substrates include polyester gelcoat and non-gelcoat, epoxy and phenolic mold surfaces, and most metals. Zyvax® MPP 1018 is not recommended for sealing monolithic graphite or ceramic tooling.

General

Zyvax® MPP 1018 should be applied onto a clean mold surface. Zyvax® MPP 1018 is an excellent sealing material, but should not be used as a mold release agent. Use of this product without a release agent may result in severe damage to the mold. It has the ability to enhance the performance of semi-permanent release agents. In many cases, it has also been used as a means of re-surfacing a worn-out mold. The appropriate release agent should be applied on top of the product after it has been cured. For sealing purposes, a wipe on/wipe off application technique is used. To resurface a mold, use of a wipe on/leave on technique is typical.

Mold Preparation

1. After the mold has been buffed and polished with rubbing and polishing compounds, wash the mold surface thoroughly with clean water. The proper water wash will remove all fillers and water-soluble contaminants from the buffing and polishing compounds. Use liberal amounts of water. Wipe dry with clean cotton cloths.
2. Following the water wash, apply Zyvax® WaterClean to remove all traces of solvent-soluble contaminants such as waxes, silicones, oils, etc. Use liberal quantities of Zyvax® WaterClean, then wipe dry with clean cotton cloths until the mold is "squeaky clean" by thumb or hand rub test.
3. The wiping cloth should be changed regularly to ensure that a clean, absorbent surface of the wiping cloth is always presented to the mold surface. This procedure prevents recontamination of the mold by wiping cloths which carry contaminants lifted from the mold.

Application Instructions – Wipe On/Leave On

1. Apply Zyvax® MPP 1018 by wiping. Use clean, soft cotton cloths. A wipe on/leave on technique can be used, even for "Class A" finish molds, applying to an area of about four square feet at a time. Care should be taken on large structures to ensure that the overlap area is as small as possible and that the product on the area overlapped has not already cured. Generally, 1 or 2 coats are sufficient to seal. For sealing porous tooling blocks usually 6 – 12 coats are needed, which

depends on the structure and material (PU or epoxy resin of different densities) and has to be individually tested before. Allow 30 minutes between each coat. After the final coat, allow a 1-2 hour cure at room temperature. The cure time can be reduced to 20 minutes by warming mold to 49-60°C. Note: a prismatic sheen may develop on the mold surface using this method. This sheen does not imprint onto the molded part in most situations.

2. When the product has cured, apply the appropriate mold release. Please refer to the proper Product Data Sheet for mold release application details and instructions.

Application Instructions – Wipe On/ Wipe Off

Follow instructions for Wipe On/Leave On. However, after material is wiped on, wipe off immediately using a clean, dry, soft cotton cloth being careful to wipe off evenly. Change cloths frequently for best results. Once material has begun to dry and cure, it will not be possible to wipe off without causing blemishes and streaks so it is important to wipe the sealer off immediately after it has been wiped on and is still wet. Generally, 1 or 2 wipe on/wipe off coats are sufficient to seal.

Touch-Up Coats

Touch-up coats are not possible once this product is applied and cured since a release agent must be applied over the top of it before the mold can be used in production.

Cure Test

Under the best conditions, Zyvax® MPP 1018 has been found to cure in as little as one hour. A simple test method for complete cure is: Apply one drop each of water and Zyvax® WaterClean onto a flange area that has been coated with the product. Wait a few seconds then wipe off with a clean cloth. If there is no evidence of the drops on the tool surface, the product is completely cured.

Important

The recommended number of coats and cure times are a general guideline found to be 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 it necessary 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

The container should be kept closed at all times when not in use to prevent contamination, evaporation and/or premature curing. Do not store at temperatures above 38°C. Zyvax® MPP 1018 is flammable. Keep away from heat, sparks, flames and combustion sources during storage and use. If stored in cold temperatures, allow to warm to room temperature before using.

Handling

For more information, request a copy of Chem-Trend's Material Safety Data Sheet. Do not use if the use by date has been exceeded.

Packaging

Zyvax® MPP 1018 is available in a variety of package sizes. Please contact Chem-Trend customer service for details.

WARNING: Never puncture any Chemlease® product container.

Further Information

Request information on our complete range of materials: custom-formulated release agents for polyurethane molding; tire lubes and bladder coatings; Mono-Coat® semi-permanent release coatings; aerosol formulations; mold cleaners and sealers; specialized coatings and application equipment.

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