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Zyvax® 1070W

Water-Based Release Agent

Description

Zyvax® 1070W is a silicone-free, water-based release agent specifically formulated to meet the high performance requirements of the aerospace industry. It is suitable for use with all tooling types and molding processes used in the fabrication of advanced composite and metal bonded structures.

Benefits

This product is recommended for applications requiring post-mold operations such as non-destructive inspection, secondary bonding and painting. The product also has a unique tack property to aid in layup of prepregs and surface plys used in hand layup and automated tape laying/fiber placement processes. When applied properly, this product can help minimize build-up and keep tools clean through multiple molding cycles.

Mold Preparation

1. Tool surfaces should be thoroughly cleaned to remove all resin build-up, wax, oils, sealers, and other release agents.
2. Perform a final cleaning of the tool using an appropriate Zyvox® mold cleaner.
3. Prime the tool with a Zyvox® mold primer if treating composite or polymeric tooling.
4. Seal the tool with a Zyvox® mold sealer.

Wipe Application Guidelines

1. Zyvox® 1070W may be wiped onto the tool surface at ambient or elevated temperatures.
2. Gently agitate container before use.
3. Fully saturate an approved cloth and wipe an even layer of Zyvox® 1070W onto the entire tool surface. Allow the water carrier to evaporate completely.
4. Apply 1-3 more coats of Zyvox® 1070W as outlined in step 3 for a total of 2-4 coats prior to layup and molding.
5. Reapply one or more coats after each demolding as described above to maintain proper release.

Spray Application Guidelines

1. Zyvox® 1070W may be spray applied onto the tool surface at ambient or elevated temperatures using conventional air spray equipment such as HVLP.
2. We recommend selecting a small spray nozzle size of 0.3 – 0.5 mm (0.013 in. – 0.021 in.) to ensure a fine atomization is achieved.

3. We recommend spray settings of 7-10 psi (0.50 – 0.70 bar) fluid pressure and 20-30 psi (1.40 – 2.00 bar) air pressure as a general guideline.
4. Gently agitate container/spray canister before use.
5. Hold the spray tip 8-12"/20-31cm from the tool surface while spraying approximately two linear feet (0.6 meter) per second.
6. Spray a light coat onto the tool surface and allow the water carrier to evaporate completely.
7. Use a cross-hatch [0/90] spray technique wherein each subsequent coat is sprayed in the perpendicular direction to ensure full coverage.
8. Apply 1-3 more coats of Zyvox® 1070W as outlined in steps 5 and 6 for a total of 2-4 coats prior to layup and molding.
9. Reapply one or more coats after each demolding as described above to maintain proper release.

Important

The recommended number of coats and/or 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/or 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

Do not store Zyvox® 1070W at temperatures above 40°C/104°F. Keep from freezing. Keep container tightly sealed to prevent evaporation and/or contamination. If stored in cold temperatures, allow to warm to room temperature before using.

Handling

We believe Zyvox® 1070W has a low degree of hazard when used as intended. For more information, request a copy of Chem-Trend's Safety Data Sheet.

Packaging

Zyvox® 1070W is available in a variety of package sizes. Please contact Chem-Trend customer service for details.

Further Information

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

While the technical information and suggestions for use contained herein are believed to be accurate and reliable, nothing stated in this bulletin is to be taken as a warranty either expressed or implied.