

## Choosing and Using the Right Mold Protectants

### Choosing and Using the Right Rust Preventive

The fastest way for a molder to go broke is to allow his mold or tooling to rust. If rusting is not quickly corrected, parts will not pass a customer's requirements and expensive repairs will be necessary. It is not uncommon to spend several thousand dollars in repairing a rusted mold.

Using an inexpensive material that is not designed for industrial applications [such as WD-40] may be a real loser. Typically, these products are designed for water displacement [WD] and not for neutralization of fingerprints or acid residues. In addition to neutralization, a good anti-rust product will provide a film that gels over and will flow back in place if nicked or scratched. It will not have wax or other material that builds up on the mold surface requiring extra cleaning. It should also have the capability of displacing micro droplets of water that may have condensed on the mold surface, leaving a barrier to prevent direct water/steel contact. All of the SLIDE rust preventive products listed below have these basic criteria, so that your tooling is well protected. Many products on the market do not provide all of these features.

The most reliable way to protect injection molds is to spray the proper anti-rust product on the mold immediately after the molding run is over and the mold is still warm. This will protect it until the mold gets to the tool room where it is cleaned and then immediately coated again with the proper rust preventive. Often it is hard to tell whether the mold is properly coated. When in doubt add extra coating. You are gambling a few cents of extra product against big bucks in repairs if the job isn't done right. One way to improve coverage is to cover the mold with left to right spray strokes and then repeat with forward and backward strokes at right angles to the first coating. The SLIDE Quick RP [42810R] has a light blue dye that helps show if any of the mold has been missed.

Although the interior of the mold surface is the most critical for protection, don't forget to protect the sprue bushings. If this area rusts, it will be difficult to get a seal with the barrel nozzle. The entire exterior of the mold should also be coated to ensure protection. Rusting of the bases where they clamp against the platens may cause problems with keeping the mold halves parallel. This can result in flash or excessive clamp pressure being required.

Bleed out of solvents and rust preventive agents is a common production problem resulting from the type of product and method of applying materials used to clean and protect molds. At its worst, bleed out can result in the marking of the molded parts with oil, grease, or an anti-rust material. If the mold protectant does not mold off promptly at startup, a solvent cleaner is typically used to remove it. During this removal process, some solvent usually penetrates back past the ejector pins and contaminates the lubricant in the pin box. This results in thinning of the ejector pin lubricant, which then can leach out past the pins, marking the molded parts.

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Anti-rust compounds that penetrate and seal off ejector pins can be a minor source of oils and solvents that can cause bleed out. Using a mold protectant, such as SLIDE Mold Shield [#42910], that goes on dry, can help to prevent bleed out. Mold Shield offers your molds protection for up to two years. This duration of protection combined with the unique “dry” feature of Mold Shield makes it the ideal rust preventive option for many molding operations.

Selection Chart for Slide Rust Preventives

	<u>Length of Protection</u>	<u>Bleed Out</u>	<u>Neutralizer Amount</u>	<u>Blue Dye?</u>
No-Rust [40212]	5 years **	Some	Normal	No
Mold Shield [42910]	1-2 years **	No	Normal	No
Quick RP [42810R]	1-2 years **	No	Normal	Yes
White Rhino [46710]	1-2 years **	No	Normal	No
Acid Vapor [44011] Neutralizer	2 years moisture 2 month for acid	Some	5 x Normal	No
Econo-Spray Rust Preventive [45510]	3 years **	Some	Normal	Yes

\*\* Under normal indoor plant conditions

### **Test Slide Before You Buy**

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