



PLASTICS RESEARCH LABORATORIES, INC.
MOLD RELEASES & PROCESS ADDITIVES

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Technical Data Sheet

MoldWiz®

WB-4909

Mold Release

Product Description:

A water-based external release agent that adheres to the mold walls and has no affinity for the resin. Multiple releases for each application can be achieved.

Composition:

A proprietary resin emulsion comprising modified siloxane-based polymers which crosslink and form a release film on evaporation of the water carrier.

Handling:

Non-flammable.
Store above freezing.
SHAKE/MIX WELL BEFORE USING.

Features:

Easy, spray or wipe on

Uses:

Especially suitable for rotational molding of water tanks and similar shapes where high slip and excellent flow are needed for threads, as well as minimal to no warpage for the main tank area. Recommended for rotational molding of LLDPE, LDPE, MDPE, and HDPE.

Typical Properties:

Solids:	6%
Color:	Off-White
Specific Gravity:	0.999 @25°C
Viscosity:	< 15cps
Flash Point:	Non-flammable
Shelf Life:	Minimum of 1 year

Mold Preparation:

In order for the release to work effectively, the mold must be thoroughly cleaned to remove previously used mold release and other surface contaminants which may be incompatible.

New molds should be cleaned to ensure that machining oils, media blasting materials, etc. are completely removed from the tool prior to application of the WB-4909.

Molds coated with semi-permanent release agents can be stripped with WCX or CX-200HS mold strippers. For light to moderate removal of mold release or contaminants, XTEND WCX stripper is generally effective. For heavier build-up, XTEND CX-200HS mold stripper can be considered. After using mold stripper, it is important to thoroughly water wash the mold to completely remove the residue from the stripping process.

Application:

Wipe-On: Apply using a clean, woven, lint free cotton cloth, or a high quality paper towel such as: Scott Shop Towels On A Roll®, Kimberly-Clark WorkHorse® rags or WypAll® wipes. Saturate the cloth or paper towels with release until completely wet, but not dripping, and wipe onto the mold. It is best if application is made to a warm mold surface (<150°F/65°C). Apply using smooth even strokes until the film is uniformly dry without wiping marks.

Spray-On: Mold release may also be sprayed on using HVLP, and other types of pressured systems. If hand pumped spray applicators are used rather than pressurized spray equipment, it may be necessary to wipe the mold to create a uniform film and to avoid puddling.

1-2 coats are recommended depending on the mold geometry, material being molded, and process. For more difficult mold shapes, use more coats.

Heat curing, or dry cycling, WB-4909 is not required, however the release should be dry before charging the mold.

Touch-up:

Apply additional coats of release as needed either to the entire mold, or only to problem areas, such as ribs or threads. Release does not require heat cure, but should be dry before molding.

Removal

Use WCX or CX-200HS to strip the release from the molds when desired. These strippers will remove plate-out, mold release build-up, color build-up, etc. WCX is effective for mild to medium build-up. CX-200HS is used for medium to heavy build-up.

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