

## MS-136W/145W Water-based PTFE Release Agent

### Description:

Miller-Stephenson's PTFE release agent is a water based formulation which utilizes sub 1.0 micron PTFE (polytetrafluoroethylene) particles to impart superior lubricity, surface adhesion and durability, and outstanding mold release efficiency. The outstanding lubricity and extremely low coefficient of friction of this water based PTFE has been optimized for hot mold application (>190 F / 88 C). The formulation has been further enhanced with proprietary surface activation chemistry to increase adhesion of the PTFE to the molding surface. The result is a water-based release agent that is very cost-effective by maximizing releases per application and decreasing down-time. Benefits of this product include:

- Water-based formulation; Hot mold optimized
- Enhanced surface adhesion; Maximized durability
- Excellent release of all polymer types
- Non-flammable; No VOC; No GWP
- Non-migrating

### Release Agent Applications

MS-145W can be used to release the following materials with virtually no transfer of the release agent:

- Plastics
- Resins
- Acrylics
- Urethanes
- Nylons
- Rubbers
- Phenolics
- Polycarbonates
- Polystyrene
- Elastomers

### Physical Properties:

Primary Polymer:.....Fluoropolymer  
Appearance:.....Light Yellow Emulsion  
Odor:.....None  
Specific Gravity:.....1.0 g/mL @ 25°C  
Flash Point:.....None

### Recommended Application Procedure:

1. Clean mold surface thoroughly. Mechanical cleaning such as, bead media blasting or steel wool, followed by chemical cleaning, provides the best surface for application of MS-136W/145W. Removal of all previous mold release agent is critical.
2. Mix product thoroughly prior and continuously during use. If spraying, use spray equipment which provides a fine mist and ensure product is applied "wet". Proper air pressure and spray distance is critical for correct application of this product. Apply to mold surface which is above 90°C.
3. Allow water to vaporize completely before molding any parts. Failure to wait will result in drastically reduced product performance.

### Reapplication:

1. When release becomes hesitant, reapply one coat of MS-135W / 145W in the same manner as described above.

### Fused Coatings Procedure

1. After applying the release agent, heat the surface to 581°F - 600°F. Measure the surface temperature directly with a thermocouple.
2. A change in coating appearance from an opaque white to a darker, translucent will occur. Maintain the temperature of the coated surface for 5 to 10 minutes.
3. If a white residue is left on the metal surface, buff with a soft cloth. When the coating is properly fused, it is extremely durable.

**Safety data sheet (SDS) is available upon request.**

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