



# Product Information

[www.miller-stephenson.com](http://www.miller-stephenson.com)

## MS-143TE Mold Release Agent/Dry Lubricant

### Description:

MS-143TE was developed as an efficient, economical and universal release agent. This formulation is a nonflammable, non-ozone depleting release agent/dry lubricant, containing a suspension of low-molecular PTFE (polytetrafluoroethylene) fluoropolymers. As a dry lubricant, MS-143TE minimizes "slip-stick" and is ideal for low speed, light load applications. MS-143TE offers the following benefits:

- Enhanced release agent durability/adhesion
- Efficient and consistent release of molded parts
- Outstanding lubricity (low coefficient of friction)
- Nonflammable, Non-ozone depleting formulation
- Non-migrating; Non-staining

### Release Agent Applications

MS-143TE formulation chemistry can be used to release the following materials and comes in concentrations ranging from 1-10 % PTFE:

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

### Dry Lubricant Applications

As a dry lubricant, MS-143TE is applicable on a variety of materials and will afford unmatched lubricity and wear resistance. These materials include:

- Metal
- Glass
- Rubber
- Wood
- Ceramics
- Elastomers
- Polycarbonates
- Elastomers

### Physical Properties:

Primary Polymer:....Fluoropolymer  
Appearance:.....White Particle suspension  
Odor:.....Slight  
Specific Gravity:.....1.31 g/mL @ 25°C  
Ozone depletion:.....0.00  
VOC content:.....510 g/mL

### 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-143TE. 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 below 50 Celsius
3. Allow solvent to dry completely before molding any parts. Failure to wait until all solvent is evaporated will result in drastically reduced product performance.

### Reapplication:

1. When release becomes hesitant, reapply one coat of MS-143TE 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.

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