miller-stephenson

Product Information

www.miller-stephenson.com

MS-143ZR
Mold Release Agent/Dry Lubricant

Description:

MS-143ZR 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-143ZR minimizes "slip-stick" and is ideal for low speed, light load applications. MS-143ZR 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-143ZR 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-143ZR 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:…..1.20 g/mL @ 25°C
Ozone depletion:.....0.00
VOC content…….910 g/L

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-143ZR. 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˚C.

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-143ZR in the same manner as described above.

Fused Coatings Procedure

1. After applying the release agent, heat the surface to 581ºF - 600ºF. 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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