



PRODUCT DATA SHEET

MARBALEASE® IMR-3 Internal Mold Release

General Product Information

MARBALEASE® IMR-3 Internal Mold Release is a liquid process aid additive for use in the pultrusion thermo-set composite production method using phenolic resins. MARBALEASE® IMR-3 is ideal for use with phenolic resins but may be used with some vinylester and epoxy resins. Typically added at rates of 0.5 - 2.0% to the pultrusion resin formulation, MARBALEASE® IMR-3 Internal Mold Release aids the release of pultruded composite from the die wall as the composite moves through the die. It contains no wax, silicone or metallic stearates.

Benefits can include -

- Improved part mechanical and cosmetic properties by improving wetting of the reinforcement
- Better dispersion of fillers and other additives
- Reduced matrix viscosity
- Enhanced antistatic properties
- Lower pulling force requirements during processing of pultruded composites

MARBALEASE® IMR-3 Internal Mold Release is a non-exuding polymeric blend of fatty acids and amines, allowing parts to emerge ready for post-finishing without solvent wash or abrasion. May also be used to aid in difficult closed molding applications when used with external mold release.

Evaluation

Prior to use in production an experimental examination of the influences that MARBALEASE® IMR-3 Internal Mold Release has on the pultrusion processing variables should be performed. Testing of the effects on pull force, surface appearance, resin viscosity, and resin kinetics should be conducted as well as any effects on mechanical properties of the pultruded composites. For example, start evaluations at 1 part per 100 parts neat resin. The percentage mold release required will be determined by the amount of filler with the upper limit determined at the point where it retards the cure. Adjust the level of mold release or increase the catalyst level within the range specified by the resin manufacturer.

Directions for Use

Consult Material Safety Data Sheet (MSDS) prior to use. MARBALEASE® IMR-3 Internal Mold Release should always be used in a well-ventilated area with appropriate personal protection equipment, including solvent resistant gloves and eye protection.

Mix MARBALEASE® IMR-3 Internal Mold Release prior to use. Add at a ratio determined by evaluation into neat resin prior to addition of catalyst, fillers, and other resin additives. For two-part thermoset resins, mix the process aid additive in the less viscous or less reactive side before combining parts A and B.

55 GALLON (208.2 LITER) DRUM, 5 GALLON (18.9 LITER) PAIL, AND 1 GALLON (3.79 LITER) BOTTLE

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