Technical Data Sheet

# LOCTITE® FREKOTE SOLO®

Known as SOLO®
June 2014

## PRODUCT DESCRIPTION

LOCTITE® FREKOTE SOLO® provides the following product characteristics:

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| **Technology** | Mold Release |
| Appearance | Clear, colorless[LMS] |
| Chemical Type | Solvent Based Polymer |
| Odor | Hydrocarbon |
| **Cure** | Room temperature cure |
| Cured Thermal Stability | ≤400 °C |
| **Application** | Release Coatings |
| Application Temperature | 13 to 43 °C |
| Specific Benefit | • High gloss finish<br>• Easy application<br>• Maximum mold utilization<br>• No polishing required<br>• Minimal mold build-up |

Frekote® LOCTITE® FREKOTE SOLO® contains a unique polymer designed to release all gel-coated fiberglass reinforced and filled polyester composites. Applications and use of a release agent has never been easier, simply spray on and leave on with no need for polishing . The resulting polymer film retains the original gloss of the mold and is caable of providing multiple releases.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

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|---|---|
| Specific Gravity @ 25 °C | 0.72 to 0.735[LMS] |
| Flash Point - See SDS | |

## GENERAL INFORMATION

**This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.**

**For safe handling information on this product, consult the Safety Data Sheet (SDS).**

### Mold Preparation

**Cleaning:**

Mold surfaces must be thoroughly cleaned and dried. All traces of prior release must be removed. This may be accomplished by using Frekote® PMC or other suitable cleaner. Frekote® 915WB™ or light abrasives can be used for heavy build-up.

**Sealing New/Repaired Molds:**

Fully cured unused molds should be sealed before use. This can be accomplished by applying 4 additional coats of LOCTITE® FREKOTE SOLO®. Fresh or "production line" repairs, new fiberglass and epoxy molds should be cured per manufacturer's instructions, usually a minimum of 2 -3 weeks at 22°C before starting full-scale production. Occasionally, green or freshly repaired molds are rushed into service prior to complete cure causing an increased amount of free styrene on the mold surface. These areas of the mold surface would be considered extremely green due to the short cure time and will require the extra styrene sealing capability of Frekote® Mold Sealer. Sealing may be accomplished by wiping 2-3 coats of Frekote® Mold Sealer onto the repaired area(s). Allow full cure of the appropriate Frekote® mold sealer before you apply the first coat of LOCTITE® FREKOTE SOLO® as outlined in the directions of use.

**Directions for use:**

1. Prior of use of LOCTITE® FREKOTE SOLO® remove dust from the mold by blowing off with a dry and oil free air source.
2. Spray LOCTITE® FREKOTE SOLO® using a high volume low-pressure spray gun. Set the pot pressure at 3 to 6 psi and the air atomization pressure to 35 to 50 psi. Spray using a 1.3 mm diameter spray nozzle.
3. Keep spray head 20 to 25 cm from the mold surface during application. Fine tune air and liquid controls to provide a light, uniform film of LOCTITE® FREKOTE SOLO® that remains wet for approximately 15 to 30 cm behind the pass of the gun head. Setting the air pressure at 35 to 50 psi will reduce the fogging effect of the spray. Slight adjustments of the air and liquid controls on the spray gun will have to be made to insure a light and uniform spray pattern is being produced. In difficult to reach areas, lower air pressure will produce a slightly wetter film that is easier to see and will help to deposit a more uniform film.
4. Systematically apply product to the entire mold surface. Apply each coat perpendicular to the previous coat (up and down would be followed by side to side motion). Lap each stroke over the preceding stroke to insure uniform and complete coverage. Spraying of intricate or deep mold areas can be hard to reach, making it difficult to apply a uniform film in these areas. In these areas it is recommended that initially wiping on and not wiping off a light coat or two of LOCTITE® FREKOTE SOLO® onto the desired areas, followed by the normal application over the entire mold. Wiping on multiple coats requires only solvent evaporation between coats and the subsequent

spraying. A dry, clean, lint free cotton cloth should be used for best results.

5. Repeat appliation to give a final coverage of 1 gallon of LOCTITE® FREKOTE SOLO® to 200 square feet of seasoned mold surface, typically 5 coats. A couple of extra coats can be applied in known high wear areas of the mold to provide extra slip. Apply one coat after another. No cure time needed between coats. After spraying final coat, allow to cure for 20 to 30 minutes prior to application of gel coat. Hot summer weather increases plant temperatures causing LOCTITE® FREKOTE SOLO® to evaporate faster than normal. Adjust your spray gun accordingly to insure a proper wet and uniform film is being applied.
6. **NOTE:** If you are spraying onto a mold large enough that you must walk on the mold, use this simple technique - start at one end and apply all of the recommended number of coats to one specific section at a time. This can be accomplished because after evaproation of one coat of LOCTITE® FREKOTE SOLO® the next coat can be applied immediately. Repeat this process working your way section by section to the opposite side of the mold. After application is complete, the normal 20 to 30 minutes cure needs to be followed. This technique will eliminate any walking on the mold during the initial application. Some type of foot covering is always recommended when entering a mold to apply.

## Mold Touch up

Abrasion will gradually cause wear and parts will begin to adhere to the mold surface if a continuous release film is not maintained. It's best to always touch-up the mold at the first sign of diminished release, before release becomes difficult. Simply touch-up the entire mold or apply spot touch-ups to high wear areas following steps 1-3 under directions for use. Only 1 coat is usually required for touch-up. Typically, 15 minutes cure time is required prior to resumption of molding.

## Loctite Material Specification[LMS]

LMS dated February 07, 2007. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

## Storage

The product is classified as flammable and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidizing agents or combustible materials. Store product in the unopened container in a dry location. Storage information may also be indicated on the product container labelling.

**Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties**.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representive.

## Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP



Reference 0.2