Technical Data Sheet

# LOCTITE® FREKOTE 44-NC™

Known as FREKOTE® 44-NC™
January 2015

## PRODUCT DESCRIPTION

LOCTITE® FREKOTE 44-NC™ provides the following product characteristics:

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| **Technology** | Mold Release |
| Appearance | Clear to slight blue tint[LMS] |
| Chemical Type | Solvent Based Polymer |
| Odor | Solvent |
| **Cure** | Room temperature cure |
| Cured Thermal Stability | ≤400 °C |
| **Application** | Release Coatings |
| Application Temperature | 13 to 60 °C |
| Specific Benefit | • Better mold utilization<br>• Non-contaminating transfer<br>• No mold build-up<br>• lower mold maintenance costs |

LOCTITE® FREKOTE 44-NC™ is a release agent where a non-transferring release is necessary. This semi-permanent, non-migratory release system chemically bonds to the mold surface to form a micro thin film which is stable at temperatures exceeding most molding processes. LOCTITE® FREKOTE 44-NC™ can be used for the release of epoxies, polyester resins, thermoplastics, adhesives, and rotationally molded plastics.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

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| Specific Gravity @ 25 °C | 0.76 to 0.782[LMS] |
| Release Agent Transfer | ≥4[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:

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.

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.

Fully cured previously unused molds should be sealed before use. This can be accomplished by applying one to two coats of an appropriate Frekote® mold sealer, following the directions for use instructions.

Allow full cure of the appropriate Frekote® mold sealer before you apply the first coat of LOCTITE® FREKOTE 44-NC™ as outlined in the directions of use.

### Directions for use:

1. LOCTITE® FREKOTE 44-NC™ can be applied to mold surfaces at room temperature up to 60°C by spraying, brushing or wiping with a clean lint-free, cloth. When spraying ensure a dry air source is used or use an airless spray system. Always use in a well ventilated area.
2. Wipe or spray on a smooth, thin, continuous, wet film. Avoid wiping or spraying over the same area that was just coated until the solvent has evaporated. If spraying, hold nozzle 20 to 30cm from mold surface. It is suggested that small areas be coated, working progressively from one side of the mold to the other.
3. Initially, apply 4 to 6 base coats allowing 10 to 15 minutes between coats for solvent evaporation .
4. Allow the final coat to cure for 3 hours at 22°C and can be shortened by baking the mold for only 15 minutes at 100 to 150°C.
5. Maximum releases will be obtained as the mold surface becomes conditioned to LOCTITE® FREKOTE 44-NC™ . Performance can be enhanced by re-coating once, after the first few initial pulls.
6. When any release difficulty is experienced, the area in question can be "touched-up" by re-coating the entire mold surface or just those areas where release difficulty is occurring.
7. **NOTE**: LOCTITE® FREKOTE 44-NC™ is moisture sensitive, keep container tightly closed when not in use. The product should always be used in a well ventilated area.

8. **Precaution:** Users of closed mold systems (rotomolding) must be certain that solvent evaporation is complete and that all solvent vapors have been ventilated from the mold cavity prior to closing the mold. An oil-free compressed air source can be used to assist in evaporation of solvents and ventilation of the mold cavity.

**Mold Touch up**
Touch up coats should only be applied to areas where poor release is noticed and should be applied using the same method as base coats. This will reduce the possibility of release agent or polymer build-up. The frequency of touch ups will depend on the polymer type, mold configuration, and abrasion parameters.

**Loctite Material Specification**[LMS]
LMS dated February 11, 2003. 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 0.1