

# FREKOTE® CAST URETHANE RELEASE

December 2010

## PRODUCT DESCRIPTION

CAST URETHANE RELEASE provides the following product characteristics:

<b>Technology</b>	Mold Release
<b>Appearance</b>	Clear, colorless to slight yellow <sup>LMS</sup>
<b>Chemical Type</b>	Solvent Based Polymer
<b>Odor</b>	Solvent
<b>Cure</b>	Room temperature cure
<b>Cured Thermal Stability</b>	≤400 °C
<b>Application</b>	Release Coatings
<b>Application Temperature</b>	20 to 150 °C
<b>Specific Benefit</b>	<ul style="list-style-type: none"> <li>• Fast curing</li> <li>• Multiple releases</li> <li>• No transfer</li> <li>• Minimal mold build-up</li> </ul>

CAST URETHANE RELEASE has been designed to form a semi-permanent release coating on the mold surface for rigid, cast polyurethane products. The multiple release non-transferring system chemically bonds to the mold surface to form a micro thin chemically resistant coating. CAST URETHANE RELEASE cures very rapidly on the mold surface with minimal build-up and exhibits high thermal and chemical stability for most PU molding processes .

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity, g/cm<sup>3</sup> 0.71

Flash Point - See MSDS

## 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 Material Safety Data Sheet (MSDS).**

## 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.

## Directions for use:

1. CAST URETHANE RELEASE can be applied to mold surfaces at room temperature up to 43°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 2 to 3 base coats allowing 5 minutes between coats for solvent evaporation .
4. Allow the final coat to cure for 10 minutes at 22°C.
5. Maximum releases will be obtained as the mold surface becomes conditioned to CAST URETHANE RELEASE . 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:** CAST URETHANE RELEASE is moisture sensitive, keep container tightly closed when not in use. The product should always be used in a well ventilated area.

## 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<sup>LMS</sup>

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: 5 °C to 25 °C. Storage below 5 °C or greater than 25 °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 Representative.

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\mu\text{m} / 25.4 = \text{mil}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{MPa} \times 145 = \text{psi}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

**Note**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

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Reference 0.0