

LOCTITE[®] CR 3585[™]

 Known as LOCTITE[®] 3585[™]

April 2015

PRODUCT DESCRIPTION

LOCTITE[®] CR 3585[™] provides the following product characteristics:

Technology	Acrylic
Chemical Type	UV acrylic
Appearance (uncured)	Clear liquid ^{LMS}
Viscosity	Low
Components	One component - requires no mixing
Cure	Ultraviolet (UV)/ visible light
Cure Benefit	Production - high speed curing
Application	Molding compound

LOCTITE[®] CR 3585[™] is a light curing molding compound typically used for molding and patching hearing aid shells.

ISO-10993

An ISO 10993 Test Protocol is an integral part of the Quality Program for LOCTITE[®] CR 3585[™]. LOCTITE[®] CR 3585[™] has been qualified to Henkel's ISO 10993 Protocol as a means to assist in the selection of products for use in the medical device industry. Certificates of Compliance are available on Henkel's website or through the Henkel Quality Department.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.11
Flash Point - See SDS	
Viscosity, Brookfield - LVF, 25 °C, mPa·s (cP):	
Spindle 2, speed 12 rpm, , with guard	800 to 1,600 ^{LMS}

TYPICAL CURING PERFORMANCE

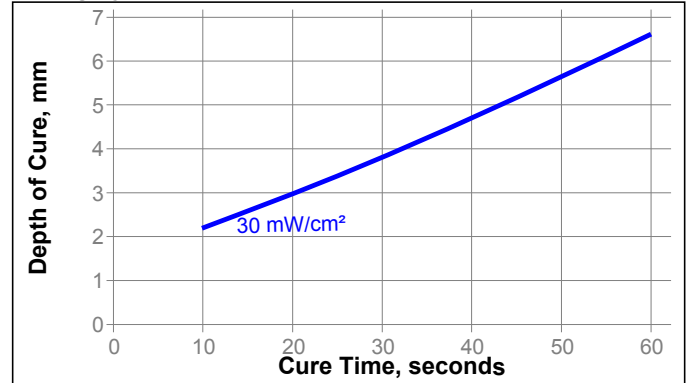
LOCTITE[®] CR 3585[™] can be cured by exposure to UV and/or visible light of sufficient intensity. Surface cure is enhanced by exposure to UV light in the 220 to 260 nm range. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of the light source, exposure time and light transmittance of the substrate through which the light must pass.

NOTE: UV intensities where quoted are measured at 365 nm using an OAI 306 UV Powermeter.

Depth of Cure vs. Irradiance (365 nm)

Cure depth depends both on external factors including the type of light source, light intensity and exposure time and on internal factors including composition of the adhesive. The following graph shows the effect of light source, light intensity and exposure time on depth of cure for LOCTITE[®] CR 3585[™].

Curing System: Metal Halide (Iron)



TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 30 mW/cm², measured @ 365 nm, for 30 seconds using a Zeta[®] 7400 light source

Physical Properties:

Shore Hardness, ISO 868, Durometer D	≥70 ^{LMS}
UV Depth of Cure, mm	≥0.9 ^{LMS}

Cured @ 30 mW/cm², measured @ 365 nm, for 60 seconds per side using a metal halide light source

Physical Properties:

Tensile Strength, at break, ISO 527-3	N/mm ²	47.5
	(psi)	(6,900)
Tensile Modulus, ISO 527-3	N/mm ²	1,714
	(psi)	(248,500)
Elongation, at break, ISO 527-3, %		5
Volume Shrinkage, ASTM D 792, %		9.55
Shore Hardness, ISO 868, Durometer D		79

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).

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of

the plastic could result). Users are recommended to confirm compatibility of the product with such substrates.

Directions for use:

1. This product is light sensitive; exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
2. The product should be dispensed from applicators with black feedlines.
3. For best performance bond surfaces should be clean and free from grease.
4. Cure rate is dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmittance of the substrate through which the radiation must pass.

Loctite Material Specification^{LMS}

LMS dated December 6, 2000. 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

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

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 Corporation 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 information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 1.1