

# LOCTITE 3220W

July 2016

## PRODUCT DESCRIPTION

LOCTITE 3220W provides the following product characteristics:

<b>Technology</b>	Epoxy
<b>Appearance</b>	white
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• One component</li> <li>• Fast cure at low temperatures</li> <li>• Excellent adhesion</li> <li>• White pigmentation for excellent light reflection</li> </ul>
<b>Cure</b>	Heat cure
<b>Application</b>	Adhesive and Sealant
<b>Typical Applications</b>	LEDs, Image sensors or Multimedia card (MMC) assembly

LOCTITE 3220W is designed for use in heat sensitive optoelectronic components and other microelectronic devices. This material offers excellent light reflection characteristics. LOCTITE 3220W is an white colored version of Loctite 3220 adhesive.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25°C, mPa·s (cP):	
@ Shear rate of 2 s <sup>-1</sup>	31,800
@ Shear rate of 20 s <sup>-1</sup>	8,940
Casson regression testing	2,442
Yield Point @ 25°C, MPa	40,000
Pot Life @ 25°C, week	1
Shelf Life @ -20°C (from date of manufacture), days	365
Flash Point - See SDS	

## TYPICAL CURING PERFORMANCE Cure Schedule

5 to 10 minutes @ 80°C

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

## TYPICAL PROPERTIES OF CURED MATERIAL

### Physical Properties :

Glass Transition Temperature (Tg) by TMA, °C	29
Coefficient of Thermal Expansion, , 10 <sup>-6</sup> /°C:	
Alpha 1, < Tg	55
Alpha 2, > Tg	162

## TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Strength :	
Glass Epoxy to Glass Epoxy	N/mm <sup>2</sup> >10 (psi) (1,450)
Lap Shear Strength :	
Glass Epoxy to Glass Epoxy	N/mm <sup>2</sup> 11 (psi) (1,682)

## GENERAL INFORMATION

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

### Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

## DIRECTIONS FOR USE

1. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
2. Some filler settling is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
3. Apply adhesive to all surfaces to be bonded and join together.
4. In most applications only contact pressure is required.
5. Usable shelf life may vary depending on method of application and storage conditions.

## STORAGE:

Store in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

### Optimal Storage : -20 °C

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**
 $(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$ 
 $\text{kV/mm} \times 25.4 = \text{V/mil}$ 
 $\text{mm} / 25.4 = \text{inches}$ 
 $\text{N} \times 0.225 = \text{lb/F}$ 
 $\text{N/mm} \times 5.71 = \text{lb/in}$ 
 $\text{psi} \times 145 = \text{N/mm}^2$ 
 $\text{MPa} = \text{N/mm}^2$ 
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$ 
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$ 
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$ 
 $\text{mPa}\cdot\text{s} = \text{cP}$ 
**Reference 2****Disclaimer****Note:**

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