

LOCTITE[®] 24N-HV-100K

Known as URA-BOND 24N-HV-100K
(Draft Malaspina) March 2020

PRODUCT DESCRIPTION

LOCTITE[®] 24N-HV-100K provides the following product characteristics:

Technology	Polyurethane
Chemical Type (Resin)	Isocyanate
Chemical Type (Hardener)	Polyol
Appearance (Resin)	Clear
Appearance (Hardener)	Black
Components	Two components - requires mixing
Mix Ratio, (by volume) Resin : Hardener	1 : 1
Cure	Room temperature cure after mixing
Application	Bonding

LOCTITE[®] 24N-HV-100K is a high viscosity, two-component polyurethane adhesive capable of providing extremely high impact resistant bonds within one hour of application. Although designed specifically for Lexan bond applications, LOCTITE[®] 24N-HV-100K is an excellent general purpose adhesive providing exceptional bond strength to a wide variety of substrates; glass, butyrate, wood, metal etc.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:

Specific Gravity @ 25 °C	1.1
Flash Point - See SDS	
Viscosity, 25°C,cP:	
1 rpm	900,000 to 12,000,000
10 rpm	150,000 to 300,000

Hardener:

Specific Gravity @ 25 °C	1.04
Flash Point - See SDS	
Viscosity, 25°C,cP:	
5 rpm	200,000 to 400,000
50 rpm	45,000 to 65,000

Mixed:

Solids Content, %	100
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TYPICAL CURING PERFORMANCE

Working Time @ 25 °C, minutes	5 to 10
Fixture time @ 25°C, minutes	30 to 40
Cure Time @ 25 °C, hours	24
Cure Time @ 65 °C, minutes	15

TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 25 °C for 24 hours

Physical Properties:

Shore Hardness, ISO 868, Durometer D	85 to 90
Elongation, ISO 527-2, %	>200
Tensile Strength, ISO 527-2	N/mm ² 11.7 (psi) (1,700)

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 24days @ 25 °C

Tensile Lap Shear Strength, :	
Polycarbonate	N/mm ² 3.7 (psi) (540)
T-Peel Strength, ISO 11339, :	
Polycarbonate	N/mm (lb/in) 14 to 15.8 (80 to 90)

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).

Directions For Use:

1. Use gloves to minimize skin contact. DO NOT use solvents for cleaning hands.
2. **Dual Cartridges:** To use simply insert the cartridge into the application gun and start the plunger into the cylinders using light pressure on the trigger. Next, remove the cartridge cap and expel a small amount of adhesive to be sure both sides are flowing evenly and freely. If automatic mixing of resin and hardener is desired, attach the mixing nozzle to the end of the cartridge and begin dispensing the adhesive. **Bulk Containers:** Utilize volumetric dispensing system to ensure proper mix ratio and utilize mix nozzle to obtain adequate mixing.
3. Allow 24 hours at 22 °C for cure. Heat up to 93°C will speed curing. Maximum chemical resistance is achieved after seven days at 22°C.
4. Mixed product is free flowing and self leveling. Potting voids by moving the discharge point from the bottom up will give the best results.
5. Keep parts from moving during cure. Parts must be positioned to contain the product inside the potting voids during the cure.
6. Excessive uncured adhesive can be cleaned up with ketone type solvents.

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.

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. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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Reference **N/A**