CHEMENCE
CREATING BONDS THAT LAST

KH9001-TDS-R1.0

Revision Date: 2022-07-11

KH9001

Product Description:

Krylex® KH9001 is a long open-time moisture curing polyurethane hot-melt adhesive/sealant formulated for good adhesion to plastic, glass and metal substrates.

Product Features

- Long open-time
- High tack
- High flexibility after cure
- Excellent drop resistance and shock absorption
- Low WVTR
- Low dielectric constant
- Excellent chemical resistance
- Reworkable grade

Cure Notes

- Rate of curing varies based on heat/humidity levels
- At least one of the bond substrates must be moisture transmitting to develop good adhesion strength
- Cure profile and final adhesion properties are dependent on bond-line thickness

UNCURED PROPERTY	VALUE	TEST METHOD
Viscosity at 120°C (Cps)	5700cps	Rheometer, 20s-1
Open Time*	10min	N/A
Appearance	Yellow semi-solid	N/A

*Minimum amount of time after adhesive is dispensed for building green strength (handling strength, 50 psi)

CURED PROPERTY	VALUE	TEST METHOD
Tensile Modulus (MPa)	1.29	ASTM D638
Elongation, %	>500%	ASTM D638
Shore Hardness	A73	ASTM D2240
Glass Transition Temp. (°C)	-3.6	ASTM E1640
Storage Modulus (25°C, MPa)	2.92E6	ASTM E1640
Storage Modulus (85°C, MPa)	6.03E5	ASTM E1640
Water vapor transmission rate, g/hr.m2	0.126	ASTM E96/E96M-16
Dielectric constant at 25°C, 1MHz	2.1	ASTM D150-11
Loss factor at 25°C, 1MHz	0.0178	ASTM D150-11

Lap Shear Properties ASTM D1002

SUSTRATE	Max Force (MPa)
PBT (sanded) – Stainless Steel	2.44
PC – Stainless Steel	2.46
PC – Aluminium	2.4
PC - PC	1.78
PVC - Aluminum	1.98
PC - LCP	2.98
PC - Nylon	2.72
PET - Aluminium	1.24

*Substrate failure, 5 mil bond thickness cured at 1 week at ambient conditions

General Information

For safe handling of this product consult the Safety Data Sheet.

Directions for Curing

1. KH9001 is sensitive to moisture. Store in moisture resistant container.
2. Do not exceed temperatures above 120°C and pressure above 60 psi during dispense. Use only dry air or Nitrogen during dispense.
3. All bond surfaces should be clean and free from grease, mold release or other contaminants.
4. Cure speed is dependent on the heat and humidity levels, the moisture transmission of substrate and required depth of cure.
5. Bonded parts should be allowed to cool before testing or subjecting to any service loads.
6. Plastic grades and part design should be considered to avoid cracking and improve adhesion.
7. Avoid over-heating or applying excess pressure during dispense process

Handling and Safety

For maximum shelf life, keep containers sealed and store in dry conditions. Keep out of the reach of children. Uncured adhesive contains free isocyanates, and it is very important to follow the safety and handling guidelines. Use heat resistant gloves for handling hot syringes. Appropriate eye wear and protective equipment is required during the usage of uncured material. Refer to SDS for further information

NOTES

All the test data, recommended procedures and other statements contained herein are furnished for information only for this experimental material and accuracy of the information is not guaranteed. Chemence 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. Considering the foregoing, Chemence specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Chemence products. Chemence 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 Chemence 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 application