CHEMENCE
CREATING BONDS THAT LAST

KU5144-TDS-R1.0

Revision Date: 10/2/2022

KU5144

Product Description:

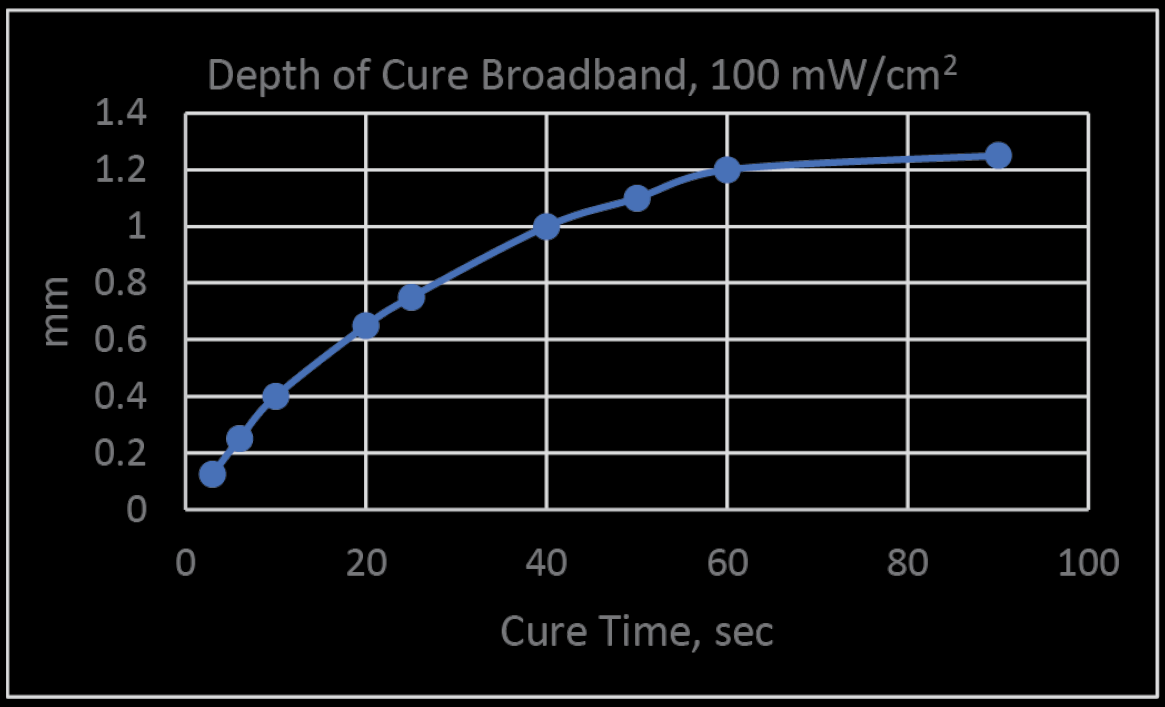
KRYLEX® KU5144 is a flexible acrylic adhesive developed mainly for tack free adhesive/coating applications in electronics.

Product Features

- Instant cure with UV light
- Black in color
- Dry to touch in open face curing applications
- Scratch and abrasion resistant
- Multi-substrate adhesion
- High dispense viscosity for good bead control
- 100% solids

Cure Notes

- Instant UV cure
- 365nm to 405nm LED or broad-spectrum UVA lamps recommended for curing.
- Broadband curing shown using SUNRAY system @100mW/cm^2



UNCURED PROPERTY	VALUE	TEST METHOD
Color	Black	N/A
Viscosity cPs @ 25°C	310	Rheometer, 20s-1
Specific Gravity	1.15	N/A
Work Life (months)	12	N/A

CURED PROPERTY	VALUE	TEST METHOD
Tensile Modulus (MPa)	430	ASTM D638
Elongation, %	225	ASTM D638
Tg, ^{0}C	80	ASTM E1545
Water Absorption, % @ 37^{0}C	0.9	ASTM D570
Linear Shrinkage, %	2.0	UV Cure, Rheometer
Volumetric Shrinkage, %	2.4	N/A
Storage Modulus (25^{0}C, MPa)	980	ASTM E1640

Lap Shear Properties ASTM D1002

SUBSTRATE	MAX FORCE (N/in^2)	MAX FORCE (MPa)
PC – Nylon	3,258	5.05
PC - PC*	9,900	15.35
PC – Polyimide	1,880	3.0
PC - AL*	7,488	11.61
PC - LCP	416.6	0.68
PC – FR4*	7,363.32	11.41

*substrate failure, 0.5 mil bond thickness, 1x1 inch bond

General Information

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

Directions for Curing

1. KU5144 is very sensitive to light. Store in 100% light blocking container.
2. Dispensing lines must be 100% blocking for UV and Vis light.
3. Do not exceed temperatures above 1200C and pressure above 60psi during dispense. Use only dry air or Nitrogen during dispense.
4. All bond surfaces should be clean and free from grease, mold release or other contaminants.
5. Cure speed is dependent on the light intensity, the light transmission of substrate and required depth of cure.
6. Bonded parts should be allowed to cool before testing or subjecting to any service loads.
7. Plastic grades and part design should be considered to avoid cracking and improve adhesion.

Handling and Safety

For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to SDS for further information. Shipping temperature recommended between 5 – 15^0C.

NOTES

All 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 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.