

HumiSeal® Vivid Cure™ UV 6041

Technical Data Sheet

LOW STRESS, LIQUID OPTICALLY CLEAR ADHESIVE (LOCA)

Fast curing, water white, urethane acrylate designed for utilization as an LCD interface adhesive. This product is a soft, flexible, low modulus polymer that provides a high amount of bond strength without imparting stress. This is a non-yellowing adhesive that exhibits excellent resistance to moisture.

APPLICATIONS

- Touch Screen Displays
- LCD
- Large Format Displays
- Consumer Displays
- Medical Devices

FEATURES

- RoHS & REACH Compliant
- GB 33372-2020 Compliant
- Non-Yellowing, No-Haze
- Low Stress Adhesive
- Ultra -Low Shrinkage
- UVA Curable

SUBSTRATES

- Plastics
- Glass
- Metals

Typical Properties of Uncured HumiSeal® Vivid Cure™ UV 6041

Chemical Class	UV Acrylate
Appearance	Clear
Viscosity @ 25°C, Spindle 5 @ 20 RPM, cps	2,000 to 3,000
Specific Gravity	0.90
Cleanup Solvent	Isopropyl alcohol

UV Curing Guidelines*

Humiseal Vivid Cure™ UV 6041 adhesive has been formulated to allow flexibility in the curing process. Humiseal Vivid Cure™ UV 6041 can be cured using full spectrum mercury vapor light systems as well as 365nm and 395nm LED systems. The table below details minimum dosage values required to properly crosslink Humiseal Vivid Cure™ UV 6041.

Due to the spectral output differences emitted between LED and mercury vapor systems, wavelength specific minimum requirements will vary. 365nm is the preferred wavelength due to its efficiency in crosslinking the Humiseal Vivid Cure™ UV 6041.

“Note, adhesive thickness range of 700 – 750 microns was used during the development of the minimum required dosage values recommended below. If a different adhesive thickness is used, process adjustments may be required.”

Vivid Cure™ UV 6041 Recommended Minimum Dose (J/cm ²) Requirements	
Wavelength (nm)	UVA
365nm	1.7
395nm	1.9
Full Spectrum Mercury Vapor	2.6

Values measured with an EIT Powerpuck II

* These values are for guidelines only and not meant to be used as a specification

It is recommended that you contact Humiseal technical support to discuss your application and review the required recommended minimum cure requirements.

Typical Properties of Cured Material**

Tensile Modulus @ -60°C, MPa	100 to 500
Glass Transition Temperature (Tg), °C	-40 to -45
Linear Shrinkage, %	< 1
Refractive Index	1.459 to 1.470
Haze, %, per ASTM D1003	< 0.2
Total Luminous Transmittance, %, per ASTM D1003	> 99
Color Coordinate, b*	0.03
Dielectric Constant / Dissipation Factor @ 200 KHz	2.94 / 0.045
Dielectric Constant / Dissipation Factor @ 400 KHz	2.65 / 0.044
Dielectric Constant / Dissipation Factor @ 800 KHz	2.86 / 0.042
Dielectric Constant / Dissipation Factor @ 1 MHz	2.79 / 0.046
Operating Temperature Range, °C	-50 to 125

**All properties given are typical values and are not intended for use in preparing specifications.

Storage & Handling

Humiseal Vivid Cure™ UV 6041 should be stored between 8°C - 28°C in tightly closed, light-blocking containers, away from direct sunlight. Keep from freezing. Allow material to equilibrate to process area temperature for 24 hours before use. Please refer to product labeling for shelf-life information. While the material can be heated to facilitate degassing prior to use, this operation should be conducted only on the amount of adhesive to be immediately used. Multiple heating cycles of the bulk container or elevated temperature storage of Humiseal Vivid Cure™ UV 6041 should be avoided. Consult SDS for full safety information.

*Values measured with a Powerpuck II UV radiometer

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