



UV 165-183

ONE COMPONENT, FIRE RESISTANT UV CURE

Product Description

UV 165-183 is a fast curing urethane acrylate that bonds well to a wide variety of different substrates. This product requires direct UV exposure during cure. The ability of this product to fluoresce under black light facilitates inspection of bonded assemblies for adhesive presence. Adhesion and functionality is maintained while operating at 90° C. Because of the variability of different UV light sources it is suggested that the user test and specify UV intensity and exposure time. This product will cure in the presence of UV/Visible light as defined in the cure recommendations below. UV 165-183 has passed UL94 V0 standards for flame resistance. The adhesive is in full compliance with RoHS Directive 2011/65/EU and RoHS Directive EU 2015/863.

| APPLICATIONS | FEATURES | RECOMMENDED SUBSTRATES |
|--------------|---|---|
| | <ul style="list-style-type: none"> • Thixotropic • Moisture resistant • Fast cure time • Good surface wetting • Fluorescing • UL94 V0 certified • RoHS Compliant | <ul style="list-style-type: none"> • Aluminum • Plastic based substrates • Glass |

| UNCURED PROPERTIES | | |
|--|-------------------------------------|-------------|
| Property | Value | Test Method |
| Solvent Content | No Nonreactive Solvents | N/A |
| Chemical Class | Acrylated Urethane | N/A |
| Appearance | Thixotropic translucent pink liquid | N/A |
| Specific Gravity (g/mL) | 1.29 | QPTTEST002 |
| Viscosity @ 25C, SSA @ 10 RPM, cps | 30,000 - 90,000 | QPTTEST001 |
| Viscosity @ 25C, SSA @ 20 RPM, cps | 18,000 - 36,000 | QPTTEST001 |
| Viscosity @ 25C, SSA @ 50 RPM, cps | 7,000 - 20,000 | QPTTEST001 |
| Thixotropic index (SSA) | 7.0 - 9.0 | QPTTEST001 |
| *Highly thixotropic material will decrease in viscosity as shear is increased* | | |
| Flow Rate @ 25° C, g/sec. | 0.40 - 0.80 | QPTTEST022 |

| CURED MECHANICAL PROPERTIES | | |
|--|------------|-------------|
| Property | Value | Test Method |
| Durometer Hardness, Shore D | 70-85 | QPTTEST012 |
| Moisture Resistance | Excellent | N/A |
| Constant Operating Temperature, °C | -50 to 125 | N/A |
| Adhesion Strength, Al-Al, 25°C Conditioned, lbs. | >22.0 | QPTTEST021 |
| Adhesion Strength, Al-Al, 110°C 10 min. exposure, lbs. | >22.0 | QPTTEST021 |

| CURE RECOMMENDATIONS - 2 MM THICKNESS | | | | | |
|---------------------------------------|------------|-------|-------------------|---------|-------|
| Uvitron Intelliray 600 | | | Fusion H Bulb | | |
| Exposure Time | 25 seconds | | Conveyor Speed | 2' /MIN | |
| Distance from Source | 2.25" | | | | |
| Dosage (J/cm2) | UVA | 4.746 | Dosage (J/cm2) | UVA | 3.820 |
| | UVB | 0.000 | | UVB | 4.104 |
| | UVC | 0.280 | | UVC | 0.963 |
| | UVV | 5.079 | | UVV | 5.809 |
| Intensity (W/cm2) | UVA | 0.184 | Intensity (W/cm2) | UVA | 0.805 |
| | UVB | 0.000 | | UVB | 0.893 |
| | UVC | 0.011 | | UVC | 0.216 |
| | UVV | 0.202 | | UVV | 1.230 |

Storage:

Store material in dry location at a temperature between -25°C to 28°C. Material is sensitive to UV and visible light. With correct storage, shelf life of material is 12 months. Consult SDS for safe handling recommendations.

Revision Number: 4 Date: 05 May, 2019

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