

Product Description

MXCUR 351 is a low to medium viscosity, fast curing, single component Urethane methacrylate adhesive. **MXCUR 351** is specifically formulated for glass to glass, glass to metal bonding. **MXCUR 351** cures rapidly when exposed to ultra violet radiation specifically in the UVA/visible light region. Strength retention is excellent when exposed to water or humidity.

MXCUR[®] 351 offers the following characteristics:

Technology	Acrylic
Appearance (uncured)	Clear
Chemical Form	Urethane Methacrylate
Cure	UVA/Visible light
Secondary cure	None
Fluorescence	No
Components	Single – requires no mixing
Viscosity	Medium
Strength	High
Application	Glass to Glass, Glass to Metal

Properties of Uncured Material

	Typical Value
Specific Gravity @ 25°C	1.10
Viscosity @ 20°C	1200 ~ 2000mPas
Flash Point	See MSDS

UV Intensity

365nm
(20mW/cm²) **Cure speed** (number of seconds to achieve handling strength), seconds: 2
Depth of cure at same time, mm: 1.5
Depth of Cure (x4 exp. time) mm: 2.5
(5mW/cm²) **Dry surface time:** Not recommended
Fixture time, seconds: 8

Properties of Cured Material

Physical properties

Full strength achieved after correct UV exposure.

Coefficient of thermal expansion,
ASTMD696,1/°K: 100×10^{-6}
Coefficient of thermal conductivity
ASTMC177,W.mK: 0.1

Chemical/Solvent Resistance

Electrical properties

Volume resistivity (ASTM D257) Ω.cm	2 x 10 ¹⁵	
Dielectric strength (ASTM D149) kV/mm	50	
Dielectric constant & loss (ASTMD150, DIN 53483, IEC 250, BC 4542)	Constant	Loss
	100Hz	3.4 0.03
	1000Hz	3.4 0.03
	10000Hz	3.4 0.03

Performance of Cured Material

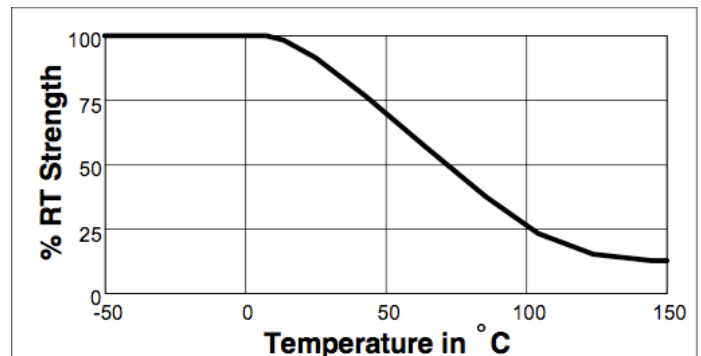
Tensile strength, steel to glass, N/mm²
(modified ASTM/DIN/modified DIN 53288)
UV 365nm/100mW/cm²
100seconds 6 to 15

Environmental Resistance

Hot Strength

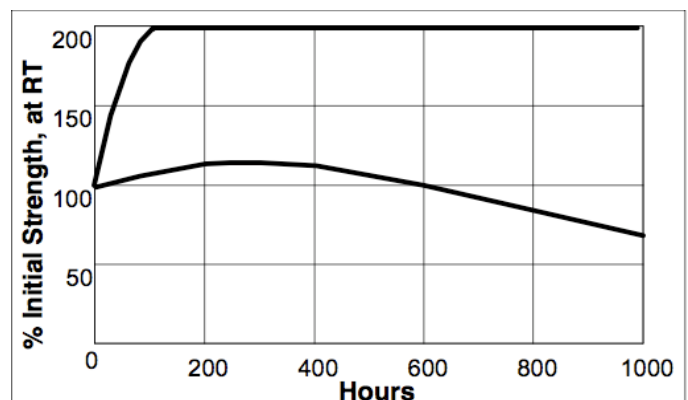
Strength test procedure: ASTM D2095.
DIN 53288

Substrate: Grit blasted mild steel pin to glass.
Cure procedure: 1 week 22°C after exposure for 10 seconds at 100mW/cm² 365 nm



Heat aging

Strength test procedure: ASTM D2095
Substrate: Grit blasted mild steel pin to glass.
Cure procedure: 1 week 22°C after exposure for 10 seconds under 365 nm.



Strength test procedure: ASTM D2095

Substrate: Grit blasted mild steel pin to glass.

Cure procedure: 1 week 22°C after exposure for
10 seconds at 100mW/cm² - 365nm

Solvent	Temperature °C	Initial strength retained at		
		100hrs	500hrs	1000hrs
90% R.H.:	40°C	50	35	25
Petrol	22°C	100	100	85
1.1.1. Trichloroethane	22°C	100	100	100
Freon TA	22°C	100	100	100
Industrial Methylated Spirit	22°C	100	100	100

General information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be used with chlorine or other strong oxidising materials.

For information on the safe handling of this product, consult the Material Safety Data Sheet, (MSDS).

Where washing systems are used to clean the surfaces before bonding, it is important to check the compatibility of the washing solution with the adhesive. In some cases these solutions can affect the cure and performance of the adhesive.

Precaution

1. Use with proper ventilation. Avoid contact with skin and eyes.
2. If contact with skin occurs, rinse with warm water and soap
3. If adhesive gets into eye, keep eye open and rinse thoroughly. Seek medical attention immediately.
4. Keep well out of reach of children.

Storage

Keep adhesive in a cool, dry place optimal storage 8°C-28°C. is recommended unless otherwise labelled. To prevent contamination of unused material, do not return any product to its original container. For specific shelf life information, contact Cartell UK Ltd. Avoid direct sunlight.

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