

Product Description

MXCUR 352 is a medium viscosity, fast curing, single component modified acrylic. **MXCUR 352** is specifically formulated to bond, seal or coat metals and glass components in industrial applications. **MXCUR 352** can cure rapidly when exposed to ultra violet radiation or with the application of activator..

MXCUR[®] 352 offers the following characteristics:

Technology	Acrylic
Appearance (uncured)	Transparent light amber liquid
Chemical Form	Modified acrylic
Cure	Ultraviolet (UV) light
Secondary cure	Heat and Activator
Fluorescence	No
Components	Single – requires no mixing
Viscosity	Medium
Application	Bonding, Coating or Sealing

Properties of Uncured Material

	Typical Value
Specific Gravity @ 25°C	1.06
Viscosity @ 20°C	15,000 to 26,000mPas
Flash Point	See MSDS
Refractive Index	1.48

Fixture Time

Fixture time is defined as the time to develop the shear strength of 0.09 N/mm².

UV Fixture Time, Glass microscope slides, seconds:
 6 mW/cm² @ 365 nm ≤12

Depth of cure

Cure depth depends on external factors including the type of light source used, light intensity and exposure time and on internal factors including composition of the adhesive.

Heat Cure

This product can be cured with heat. The bond area should be heated to 121°C and maintained at that temperature for >30 minutes.

Activator Cure

This product may be cured with an activator. Apply Activator to one surface and the adhesive to the other, mate and clamp. The assembly will reach strength in approximately 4 minutes if the gap is small, full cure in 72 hours.

Properties of Cured Material

Cured @ 100 mW/cm² @ 365 nm for 30 seconds per side plus 24 hours @ 22°C

Physical properties

Glass Transition Temperature, ASTM D 3418, °C	45
Water Absorption, %	8.7
Refractive Index, ASTM 542	1.51
Shore Hardness, ASTM D 2240, Durometer D	60
Elongation, at break, ASTM D 882, %	290
Tensile Strength, at break, ASTM D 882	N/mm ² 24.4 (psi) (3,540)
Tensile Modulus, ASTM D 882	N/mm ² 255 (psi) (37,000)

Electrical properties

Dielectric Breakdown Strength, ASTM D 149	
kV/mm	25
Volume Resistivity, IEC 60093,	8×10 ¹²
Dielectric Constant / Dissipation Factor, IEC 60250:	
1-kHz	5.2 / 0.03

Performance of Cured Material

Cured @ 100 mW/cm² @ 365 nm for 30 seconds using a medium pressure mercury arc light source
 Block Shear Strength, ISO 13445:

Steel to Glass	N/mm ² 16.5 (psi) (2,400)
Aluminum to Glass	N/mm ² 10.2 (psi) (1,485)
Polycarbonate to Glass	N/mm ² 8.2 (psi) (1,200)
PVC to Glass	N/mm ² 8.8 (psi) (1,290)
G-10 Epoxyglass to Glass	N/mm ² 13.5 (psi) (1,960)
ABS to Glass	N/mm ² 7.9 (psi) (1,150)

Environmental Resistance

Cured @ 100 mW/cm² @ 365 nm for 30 seconds using a medium pressure mercury arc light source
Block Shear Strength, ISO 13445:
Steel to Glass

Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22 °C.

Environment		% of initial strength	
		300hrs	500hrs
Heat/humidity 90% R.H	50°C	45	30
Unleaded Petrol	22°C	70	80
Motor oil (10W-30)	22°C	90	85
Air	121°C	75	80
Air	150°C	50	55

Environment		% of initial strength		
		2hrs	24hrs	170hrs
IPA	22°C	-	80	-
Water	50°C	-	-	75
Boiling Water	100°C	85	-	-

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General information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be use 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.