



TDS

MXBON®

Glass Glue

PRODUCT SPECIFICATION

MXBON® Glass Glue

Product Description

MXBON® Glass Glue is a low to medium viscosity, fast curing, single component Urethane methacrylate adhesive. MXBON® GLASS GLUE is specifically formulated for glass to glass, glass to metal bonding. MXBON® GLASS GLUE cures rapidly when exposed to ultra violet radiation specifically in the UVA region. Strength retention is excellent when exposed to water or humidity.

MXBON® Glass Glue offers the following characteristics:

Technology	Acrylic
Appearance (uncured)	Clear
Chemical Form	Urethane Methacrylate
Cure	UV
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 @ 25°C	1200 ~ 2000mPas
Flash Point	See MSDS

UV Intensity

365nm
(20mW/cm²)
Cure speed (seconds to achieve handling strength): 3 secs
Depth of cure at same time: 1.5 mm
Depth of cure (x4 exp. Time): 2.5 mm
(5mW/cm²)
Standard dry surface time: Not recommended
Fixture time: Direct Sunlight 10 secs, Bright Sunlight 30 secs approx, Cloudy conditions 2-5 mins approx
Full cure: 8 hours in direct sunlight

Properties of Cured Material

Physical properties			
Full strength achieved after correct UV exposure.			
Coefficient of thermal expansion, ASTM D696, 1/°K:		100 x10 ⁻⁶	
Coefficient of thermal conductivity ASTM C177, W.m.K:		0.1	
Electrical properties			
Volume resistivity (ASTM D257) Ω.cm	2 x 10 ¹⁵		
Dielectric strength (ASTM D149) kV/mm	50		
Dielectric constant & loss (ASTM D150, DIN 53483, IEC 250, BC 4542)			
	Constant	Loss	
100Hz	3.4	0.03	
1000Hz	3.4	0.03	
10000Hz	3.4	0.03	

Packaging And Contents

Contents of adhesive: 1x 3g
Packaging: 1x Aerosol
1x Blister card
1x Blister shell

Performance of Cured Material

Tensile strength, steel to glass, N/mm ² (Modified ASTM/DIN/modified DIN 53288) UV 365nm/100mW/cm ² 100 seconds	N/mm ² 6 to 15
--	---------------------------

Environmental Resistance

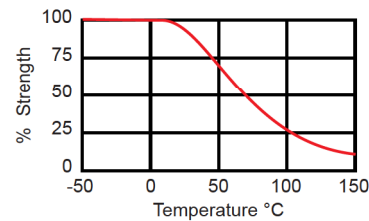
Hot Strength

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



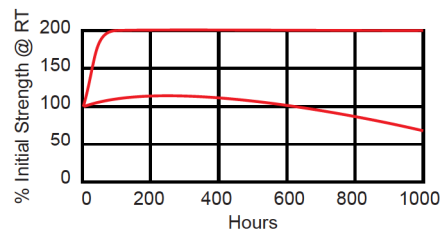
Heat Aging

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.



Chemical/Solvent Resistance

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

Solvent Temperature % 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

PRODUCT SPECIFICATION

MXBON®

Glass Glue

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.

Direction for use

1. Ensure surfaces are close fitting, clean and abraded with abrasive paper for improved bonding.
2. Away from direct sunlight, apply a thin coat of adhesive to one surface only and position correctly. If necessary support part to be bonded until fully cured ensure that the bond line is not covered during the curing process.
3. Place object in direct sunlight taking care not to move the parts during the curing process. Ensure the bond-line is exposed to strong light.
4. Remove excess adhesive immediately prior to curing with an acetone based nail varnish remover.
5. Replace cap and return to the blister pack. Store upright in a cool dry place out of the reach of children.

Precaution

1. Do not apply in direct sunlight
2. Use with proper ventilation. Avoid contact with skin and eyes.
3. If contact with skin occurs, rinse with warm water and soap.
4. If adhesive gets into eye, keep eye open and rinse thoroughly. Seek medical attention immediately.
5. 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.

Disclaimer: The data contained herein are furnished for informational purposes only and are believed to be reliable. However, Cartell UK Ltd does not assume responsibility for any results obtained by persons over whose methods Cartell UK Ltd has no control. It is the user's responsibility to determine the suitability of Cartell UK's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Cartell UK Ltd's products. Cartell UK Ltd specifically disclaims all warranties express or implied, including warranties of salability and suitability for a particular purpose arising from sale or use of Cartell UK Ltd's products. Cartell UK Ltd further disclaims any liability for consequential or incremental damages of any kind including lost profits.