

PRODUCT DESCRIPTION

MXBON® 41433 is primarily designed for bonding rigid and flexible PVC to polycarbonate where large gap filling capabilities (0.25mm) and a flexible joint are desired. Its flexibility enhances the load bearing and shock absorbing characteristics of the bond area. The product has shown excellent adhesion to a wide variety of substrates including glass, many plastics and most metals. The thixotropic nature of MXBON® 41433 reduces the migration of liquid product after application to the substrate.

Technology	Acrylic
Chemical Type	Acrylated urethane
Appearance (uncured)	Bone-white to beige translucent paste
Components	One component – requires no mixing
Viscosity	Medium, thixotropic
Cure	Ultraviolet (UV) light and/or Visible light
Application	Bonding
Specific Gravity @25 °C	1.09
Viscosity, mPa·s (cP) Brookfield – HBT (@25 °C)	
Spindle TB, 10 rpm	18,000 to 35,000
Shelf life	Storage in 8 °C to 21 °C , 12 months (Unopened condition)

TYPICAL CURING PERFORMANCE

UV light and/or visible light

MXBON® 41433 can be cured by UV light and/or visible light. The range of wavelength are 365nm、395nm and 460nm To obtain full cure on surfaces exposed to air, radiation 220 to 260 nm is also required. Fixture time and cure speed achieved depend on substrate used, bonding gap, UV intensity, exposure time and spectrum distribution of light source.

FIXTURE TIME

UV light and/or visible light

Initially cured

The cured rate depends on substrates. Fixture time is defined as the time to develop the shear strength of 0.1 N/mm².

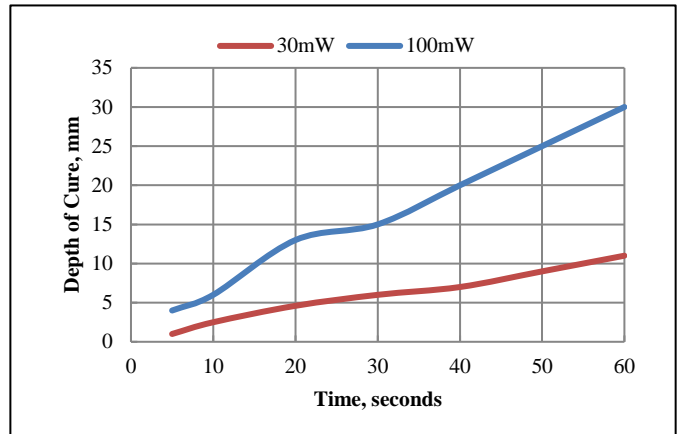
Initial time : 6 mW/cm² @365nm, ≤ 10 seconds

Deeply cured

The cured rate depends on the type of light source、the wavelength range of the light radiated、light intensity energy and lighting time.

The figure shows that MXBON® 41433 apply to different light intensity, glue layer thickness and cured speed.

Curing System: Metal halogen lamp



TYPICAL PROPERTIES OF CURED MATERIAL

Cured@30mW/cm², @365nm 80sec

Physical Properties

Elongation (%), ISO 527-3	55	
	N/mm²	psi
Tensile Modulus, ISO 527-3	550	80000
Tensile Strength, ISO 527-3	12	1700

ADHESIVE PERFORMANCE

Cured@30mW/cm², @365nm 80sec

Block Shear strength, ISO 13445

Substrate	N/mm ²	psi
PC / PC	30	4350
PC / PVC	28	4060
PC / AL	11	1600

TYPICAL ENVIRONMENTAL RESISTANCE

Cured@30mW/cm², @365nm 80sec

Heat Aging

Heat aged for 1 week @ 49°C / 100% RH, tested @ 22°C

Block Shear Strength, ISO 13445

Substrate	N/mm ²	psi
PC / PC	17	2470
PC / PVC	22	3190
PC / AL	6	870

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 oxidizing materials. 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. Users are recommended to confirm compatibility of the product with such substrates.

Storage & Handling precaution

Keep adhesive in a cool and dry place. The storage temperature is recommended at 8 °C to 21 °C. Shelf life is one year from the date of manufacture in the original container under the optimal conditions.

1. Avoid contact with skin and eyes.
2. If contact with skin, rinse with water.
3. If adhesive gets into eye, keep eye open and rinse with water thoroughly. Seek medical attention immediately.
4. Keep the material out of children's reach.

Note

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