

PRODUCT DESCRIPTION

MXBON® 14510 is designed for the sealing of gaskets. The product is a single component anaerobic, acrylic based product. The product cures when confined in the absence of air between close fitting metal surfaces. It seals close fitting joints between flanges and fixed metal faces and will flex with minor movement from the flange.

Technology	Acrylic
Chemical Type	Methacrylate ester
Appearance (uncured)	Red gel
Components	One component – requires no mixing
Viscosity	High, thixotropy
Cure	Anaerobic
Application	Gasketing and sealing

NSF International

Registered to NSF Category S2 for use as a sealant where there is no possibility of food contact in and around food processing areas. Note: This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

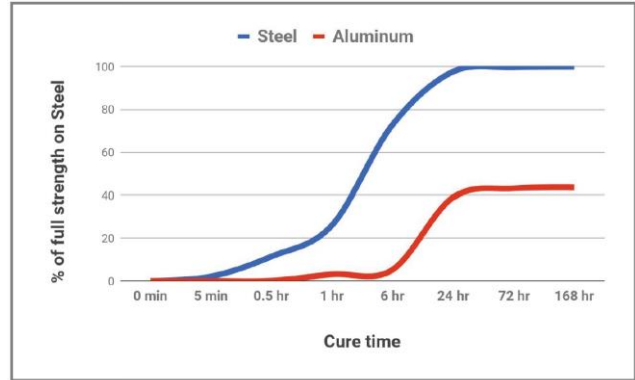
TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.1
Flash Point -	See SDS
Viscosity, Brookfield - HBT, 25 °C, mPa·s (cP)	
Spindle TC, 20 rpm	40,000 to 140,000
Shelf life	24 months unopened when stored at 8 to 24°C

TYPICAL CURING PERFORMANCE

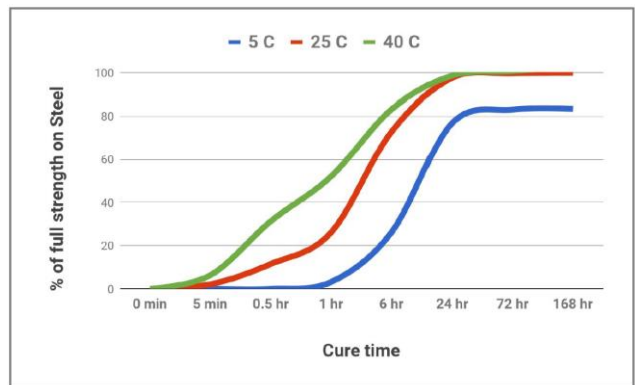
Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the shear strength developed with time on grit blasted steel lap shears compared to different materials and tested according to ISO 4587.



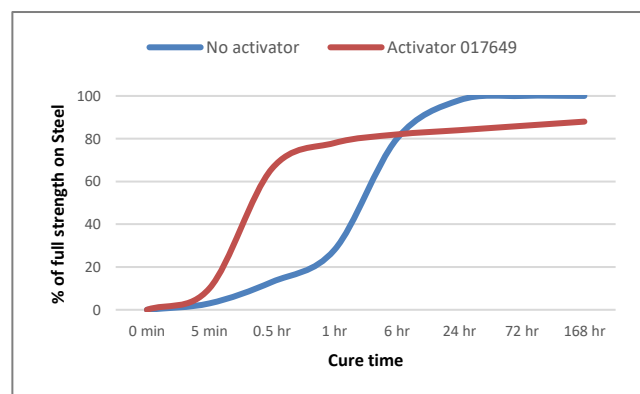
Cure Speed vs. Temperature

The rate of cure will depend on the temperature. The graph below shows the shear strength developed with time at different temperatures on grit blasted steel lap shears and tested according to ISO 4587.



Cure Speed vs. Activator

Where cure speed is unacceptably long, or large gaps are present, applying activator to the surface will improve cure speed. The graph below shows the shear strength developed with time on grit blasted steel lap shears using Activator 017649 and tested according to ISO 4587.



TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 24 hrs @ 25°C

Lap Shear Strength, ISO 4587:

Bonding Identical Substrate	N/mm ²	psi
Steel	8.4	1,223
Aluminum	1.1	166

Cured for 1 week @ 25 °C Lap Shear Strength, ISO 4587:

Bonding Identical Substrate	N/mm ²	psi
Steel	9.4	1,370
Aluminum	2.8	403

Cured for 30 minutes @ 25°C, Compressive Shear Strength, ISO 10123:

Bonding Identical Substrate	N/mm ²	psi
Steel pins and collars	11.0	1,595

Cured for 24 hours @ 25°C, Compressive Shear Strength, ISO 10123:

Bonding Identical Substrate	N/mm ²	Psi
Steel pins and collars	12.0	1,741

TYPICAL ENVIRONMENTAL RESISTANCE

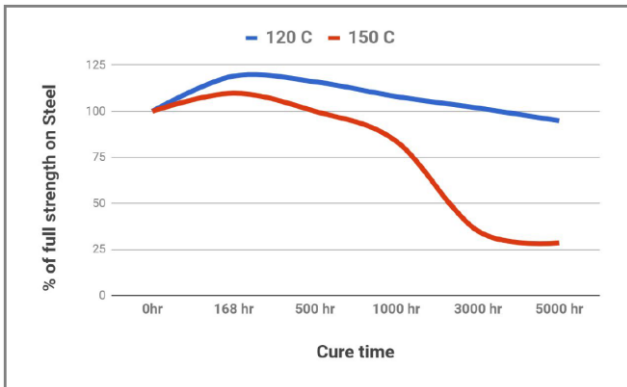
Cured for 1 week @ 25 °C

Lap Shear Strength, ISO 4587

Steel Specimen

Heat Aging

Aged at temperature indicated and tested @ 25°C



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 25°C

Environment	Temp. °C	% of initial strength				
		168 hrs	500 hrs	1000 hrs	3000 hrs	5000 hrs
Unleaded Petrol	25	100	90	70	60	50
Water/ethylene glycol 50/50	87	105	100	95	85	70
IPA	25	100	100	95	90	90
Acetone	25	100	100	80	70	60

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. In some cases, these solutions can affect the cure and performance of the adhesive. This product is not recommended for use on certain plastics. 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 24 °C. For details, consult the Safety Data Sheet, (SDS). Shelf life is two years 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.

Directions for use

For assembly

1. The substrate surfaces must be clean and free of grease.
2. Shake the product thoroughly before use.
3. If the cure speed is too slow, consider using activator.
4. Apply several drops to the nut & bolt.
5. Assemble and tighten as required.
6. To prevent the clogging of the bottle nozzle, do not let the tip touch the metal surfaces during application.

For disassembly & cleanup

1. Use localized heat (250 °C) to nut and bolt, disassemble while hot.
2. Use a wire brush to clean the charred product.

Note

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