

EB3747 A+B

Description

Loxéal EB3747 is a two-part epoxy resin, fast with excellent resistance and excellent toughness. Specifically designed to bond metal substrates, ceramic and several plastics (PVC, ABS, PC). General purpose, easy to apply, it fixes the parts in few minutes at room and low temperatures and it is resistant to water, humidity and exposure to the external environment.

Typical physical properties

	<u>Part A</u>	<u>Part B</u>
Composition:	epoxy resin	amine
Colour:	white	light grey
Viscosity, Rheometer cone-plate (+25°C - mPa s):		
Shear rate 40 s ⁻¹ :	17'000	13'000
Shear rate 0.3 s ⁻¹ :	-	800'000
Maximum gap fill (mm):		2
Mixing ratio (in volume):		1:1
Shelf life: 12 months @ +25°C in original unopened packaging.		

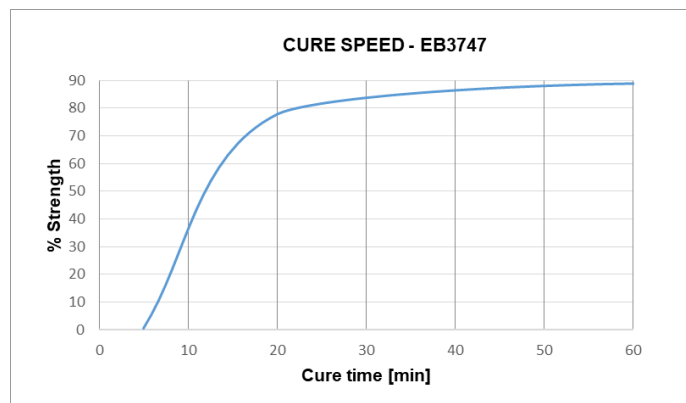
Typical curing properties at +25°C

Pot life:	4 min**
Fixture time:	6 min
Functional cure time(LSS>10MPa):	20 min

**Time detected on a 20g total mass mixture A+B

Cure speed graph

The graph hereunder shows the strength development of the product (expressed in %) over time on steel specimens. Tested in accordance with ISO 4587 at + 25°C.



Typical properties of the cured adhesive after 72h at +25°C

Shear strength, ISO 4587 (MPa):	
Mild steel (sandblasted)	20 CF
Aluminum (sandblasted)	18 CF
PVC	5 CF
PC	5 CF
ABS	5 CF

Shear strength, ISO 4587 (MPa):	
After 500h to water at +50°C	
Mild steel (sandblasted)	10 CF

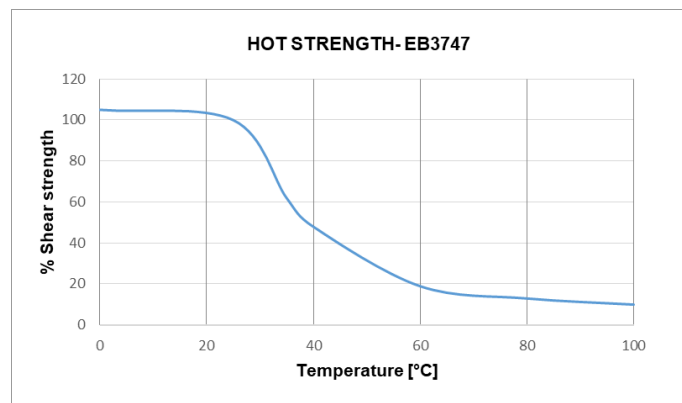
Peel resistance, ISO 4578 (n/25mm):	
Aluminum	140 CF

Water absorption (1 week @ +25°C):	0,8%
Hardness Shore D (ISO 868):	50

CF=Cohesive failure
 SF=Substrate failure
 MF=Mixed failure

Hot strength

The graph below shows the mechanical strength of the product (%) vs. temperature. Specimen steel – ISO 4587



Storage

Keep product in a cool and dry room at no more than +25°C. To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact Loxeal Technical Service

Warnings

This adhesive is not approved for usage with pure oxygen and/or oxygen reach systems. It is not suitable to be used as a sealant for chlorine and other strong oxidizing agents.

Safety, handling and disposal

Consult Material Safety Data Sheet before use

Directions for use

- **Surface preparation**

For best results we recommend to scratch the surfaces with a tool and then to degrease and clean with Loxeal Cleaner 10 or Acetone and let dry for a few seconds.

- **Mixing**

The resin and the hardener need to be mechanically mixed before use in the ratio of weight and/or volume in compliance with technical specifications until a homogeneous colour is reached. Products are available in dual cartridges with static mixers (separately provided) allowing a direct and correct product application on the substrates to bond, completely discarding the first 3/5 cm of the extruded product. Avoid excess of product blend because heating produced by chemical reaction may cause risk and loss of product.

- **Pot life**

Pot life of the mixed product may vary from few minutes to some hours at room temperature according to the resin and the hardener used. Higher temperature and big quantities reduce the pot life. Apply product at temperature higher than +15°C.

- **Assembly**

Parts to be bonded shall be assembled immediately after product application and kept close until full polymerization without providing any mechanical stress.

- **Cleaning**

Excess of product can be removed with Acetone or any other solvent based cleaner compatible with the substrates to bond. Application tools and dosing systems shall be cleaned before the product is hardened.

Cured product can be removed only mechanically.

Note

The data contained herein, obtained in Loxeal laboratories, are given for information only; if specifics are required, please contact Loxeal Technical Department. Loxeal ensures abiding quality of supplied products according to its own specifics. Loxeal cannot assume responsibility for the results obtained by others which methods are not under Loxeal control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Loxeal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxeal products. Loxeal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.

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