

Preliminary Technical Data Sheet

LOXEAL AC5008 A+B

Description

Loxeal AC5008 is a 2-part, black, Methacrylate adhesive, that cures quickly at room temperature and offers high performances on metals, plastics and composites. Developed for structural bonding even on substrates with little surface preparation. Thanks to its thixotropy it fills large gaps and it is suitable for vertical applications.

Typical physical properties

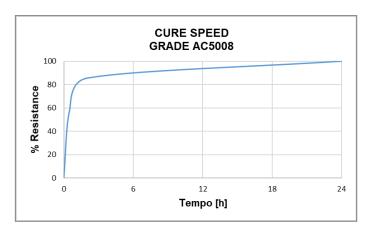
Part: R Composition: Methyl Methacrylate Methyl Methacrylate Color: straw Black Viscosity (+25°C - mPa s): 75000 thixo 118000 thixo Specific weight (g/ml): 1.06 1.0 Mixing ratio vol.: 1:1 4 mm Maximum gap fill:

Shelf life: 9 months in unopened packaging at +2°C/+7°C

Typical Curing properties at +25°C

Usable/Pot life: 7 minutes**
Fixture time: 10 minutes

The graph below shows the product strength development (%) of the product along time, on aluminum specimens tested in accordance with ISO 4587 at +25°C.



Typical Properties of the cured adhesive 24h At +25°C:

Shear strength (N/mm²) Single Lap-shear (ISO 4587):

Mild steel	30 CF
Stainless steel	30 CF
Aluminum	22 CF
Aluminum (abraded)	30 CF
Zinc plated	19 CF
PVC	7 SF
ABS	8 SF

Peel strength - ISO 4578 (N/25mm):

Aluminum: 175 CF
CF=Cohesive failure SF=Substrate failure

12 CF

Impact strength, ASTM D950 (mJ/mm²): 23
Hardness Shore D: 75
Tensile strength ASTM D638 [MPa]: 22
Elastic modulus, ASTM D638 [MPa]: 1200
Elongation at break, ASTM D638 [%]: 10

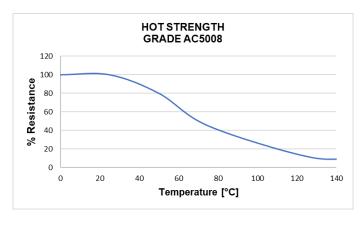
Environmental resistance

Hot strength

Epoxy CFRP

The graph below shows the mechanical strength of the product (%) vs. temperature.

Aluminum specimen, tested according to ISO4587.



STAC5008e_prel/1 03/24 Pag.1/2

^{**}Time detected on a 4g total mass mixture A+B

Directions for use

Surfaces preparation

For best results, with some metals such as aluminium, 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. On plastics we recommend to degrease and clean with Loxeal Cleaner 10 or isopropyl alcohol, after testing their compatibility with the substrates.

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 allowing a direct and correct product application on the substrates to bond, completely discarding the first 3/5 cm of the extruded 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 reduces 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 functional cure. We recommend not providing any mechanical stress during that time which can vary according to joint shape and substrates.

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.

Storage

We suggest to keep product in a refrigerated room at a temperature range from +2°C to +7°C. To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact Loxeal Technical Service

Safety and handling and disposal

Consult Material Safety Data Sheet before use

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 substrates' material and 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.

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STAC5008e_prel/1 03/24 Pag.2/2