

LOXEAL AC5470 A+B

Description

Loxeal AC5470 is a two-component low-odour acrylic adhesive developed for structural bonding of different varieties of polyamide without the need for preliminary surface treatments. It cures rapidly at room temperature, it develops excellent adhesion on nylon t providing nylon-to-nylon and nylon-to-metal joints with good chemical and high-temperature resistance. The presence of microbeads allows for controlled joint thickness and ensures excellent mechanical performance.

Typical physical properties

Parts:	A	B
Chemical composition:	methacrylate	methacrylate
Color:	yellow/translucent	black
Viscosity, Rheometer cone-plate (+25°C - mPa s):		
Shear rate 0.3 1/s	100000	100000
Shear rate 40 1/s	12000	3000
Mixing ratio by volume:	2 : 1	
Specific weight (+25°C - g/ml):	1,0	1,0
Maximum gap fill(mm):	1	
Shelf life:	6 months at +25°C in unopened packaging	

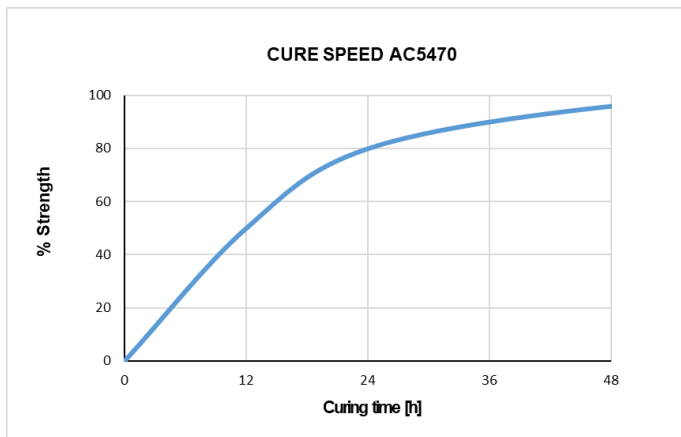
Typical curing properties at +25°C

Pot-life:	5 minutes*
Fixture time	15 minutes

* Time detected using 10 g of mixed product

Cure speed graph

The graph hereunder shows the strength development of the product (expressed in %) over time on PA6 specimens. Tested in accordance with ISO 4587 at + 25°C.



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

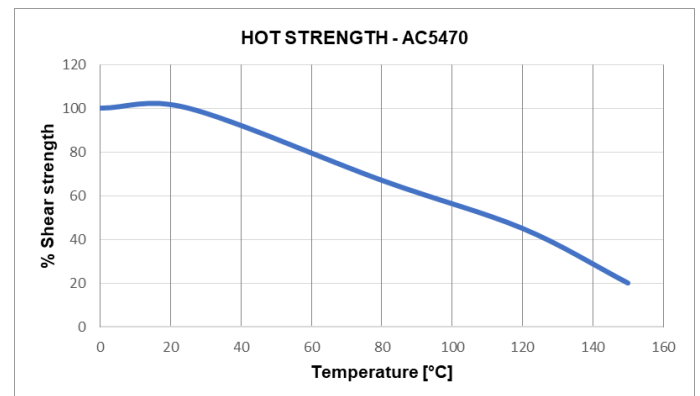
Shear strength (N/mm ²):	
Single-Lap Shear (ISO 4587)	
PA6:	8 CF
PA6.6:	8 SF
PA6 GF30:	14 CF
PA6.6/Aluminum:	10 SF
PA6.6/Stainless steel:	9 SF
Hardness (ISO868):	50 Shore D
Tensile strength (ASTM D638):	20 MPa
Elongation at break (ASTM D638):	10 %
Elastic modulus (ASTM D638):	1 GPa
Temperature range:	-40°C/+150°C

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

Environmental resistance

Hot strength graph

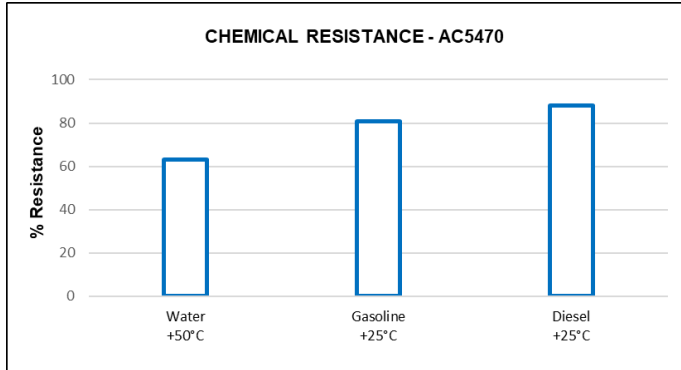
The graph below shows the mechanical strength (in %) over temperature on specimens in PA6 GF 30%. Tested in accordance with ISO 4587



Chemical Resistance

The graph below shows the change in resistance following exposure for 800 hours, at the indicated temperature and chemical substances.

PA6.6 specimens tested according to ISO 4587 at + 25°C.



Directions for use

• Surfaces preparation

For better results we recommend to degrease and clean the substrates. Lightly scratch the surfaces on metal and plastic substrates (not indicated on polyolefins) and then degrease and clean with a cleaner suitable for the substrate (i.e. Loxeal Cleaner 10 or Acetone or Isopropyl Alcohol)

• Adhesive application

Products are available in dual cartridges packaging

1. Check that the 2 parts of the adhesive come out homogeneously, pushing lightly on the regulator.
2. Mix Part A and Part B using the static mixer (separately provided) after setting it on the cartridge. If mixing the 2 parts by hand, we recommend to pay attention to the mixing ratio given on the Technical Data Sheet.
3. Apply the product; when using the static mixer, completely discard the first 3/4 cm of the extruded product.

Avoid to mix big quantities of product because heating produced by chemical reaction may be dangerous and cause loss of product.

• Pot life

Pot life of the mixed product varies according to the temperature. Higher temperature reduces the pot life and vice versa.

• 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.

Storage

Keep the product in a cool and dry room, at no more than +25°C. For a better preservation keep it stored refrigerated at temperature between +2°C/+7°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 neither with pure nor gaseous oxygen.

Safety, 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 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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