

LOXEAL INSTANT ADHESIVE 47 GEL

Description

Loxéal INSTANT 47 is a highly thixotropic ethyl cyanoacrylate adhesive, suitable for bonding of rubber and plastics together or on a metal substrate. Non-drip, non-sag gel, suitable for use on vertical surfaces.

The high viscosity formulation and the delayed fixture time allow large gaps filling and parts repositioning.

It provides proven temperature resistance up to +120°C with peaks up to +150°C for short times.

NSF registered as acceptable for use as an instant adhesive (**category S4**) in and around food processing area.

Physical properties

Composition:	modified ethyl cyanoacrylate
Colour:	clear
Viscosity (+25°C - Pa s):	gel
Specific weight (g/ml):	1,08
Gap to fill:	10 - 300 microns
Flash point:	see MSDS
Shelf life:	12 months in original unopened packaging
Temperature range:	-50°C/+120°C

Curing properties

Curing rate depends on the substrate used, on the gap, on the temperature and on the environmental humidity.

<u>Substrate</u>	<u>Fixture Time (seconds)</u>
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Plastics

* PVC	20 - 50
* Phenolic Resin	10 - 20
* ABS	15 - 40

Metals

* Steel	40 - 60
* Aluminium	20 - 40
* Zinc	60 - 100

Various substrates

* Neoprene/NBR	< 5
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In case of too long setting time, we recommend to use Loxéal Activator 9. In case of usage with PE, PP, Silicone rubbers or PTFE Loxéal Primer 7 is always recommended.

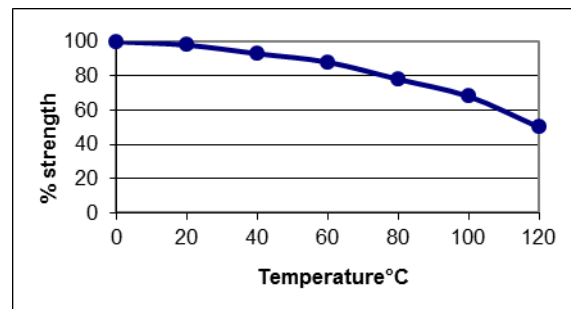
Proprieties of cured material (typical)

Tensile strength ISO 6922 (N/mm ²):	18 - 25
Shear strength ISO 4587 (N/mm ²):	13 - 18
Softening range:	+160°C - +170°C
Refraction index n ^{20D} :	similar to glass
Electrical resistivity DIN 53482 (Ω mm):	>10 ¹⁵
Dielectric strength ASTM D 149 (kV/mm):	25
Dielectric constant DIN 53483 (1MHz):	5,2

Environmental resistance

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

Specimen steel - ISO 4587



Chemical resistance

After 24 hours of polymerisation at indicated temperature.

Substance	°C	Resistance after 100 h	Resistance after 500 h	Resistance after 1000 h
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Motor oil	40	good	good	discrete
Alcohol	25	excellent	excellent	excellent
Gasoline	25	excellent	excellent	excellent
Relative humidity 90%	40	low	low	low
Refrigerating gases	25	excellent	excellent	excellent

* For information on resistance with other chemicals, contact Loxéal Technical Service

Directions for use

1. Clean and degrease all surfaces with Loxeal Cleaner 10 and allow drying before applying the adhesive.
2. For bonding low surface energy plastics such as PE, PP, PTFE, apply Loxeal Primer 7 on bonding surfaces and allow drying.
3. To reduce curing time of some hard to bond rubbers and plastics, using Activator 9 is recommended. After its application on one surface, let it dry.
Any surplus adhesive outside the joint can be instantaneously fixed with Activator 9 after assembling.
4. Use the proper bottle to apply the adhesive, avoiding the usage of improper tools. Bring the components together quickly and correctly aligned (fast curing does not allow any repositioning).
5. Apply sufficient pressure for a few seconds to fix the components and clamp them until they are completely fixed.
6. Wait 24-72 hours until full cure before any mechanical stress.

Warnings

This adhesive is not approved for usage neither with pure nor with gaseous oxygen.

Storage

We recommend to store product in a cool and dry place at temperature non exceeding +20°C. For better and enhanced shelf life, keep product in a refrigerator at +2°C/+7°C. To avoid contaminations do not refill containers with used product. For more information on applications, storage and handling contact Loxeal Technical Service

Safety, handling and disposal

Consult the 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.