

Technical Data Sheet

Preliminary LOXEAL INSTANT ADHESIVE 60R

Description

Very low viscosity instant adhesive based on alcoxy-ethyl cyanoacrylate.

Specifically formulated for 3D printing applications, as a print Infiltrant for strengthening printed models produced with 3D printing technology based on powders/granules.

Very low viscosity and delayed curing time allows good depth of penetration into parts and a wicking effect.

Usage of Loxeal 60R helps not only to strengthen the parts, but to achieve a smooth and good aesthetic appearance too.

Alcoxy-ethyl formulation reduces blooming effect and it is clear, low odour and non-irritating.

Especially suitable to be used in non-ventilated or closed areas (no powdery residue and no heating).

Physical properties

Composition:	alcoxy-ethyl cyanoacrylate
Color:	clear/colorless
Viscosity (+25°C - mPa s):	3 - 10
Specific weight (g/ml):	1,06
Gap to fill:	10 - 30 microns
Flash point (ISO 2592):	see MSDS
Shelf life:	6 months in unopened packaging
Temperature range:	-50°C/+80°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</u> (seconds)
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Plastics

* PVC:	15 - 35
* Phenolic Resin:	20 - 30
* ABS:	15 - 30

Metals

* Steel:	20 - 40
* Aluminium:	15 - 20
* Zinc:	30 - 60

Various substrates

*Neoprene/NBR:	< 10
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Properties of cured material (typical)

Tensile strength ISO 6922 (N/mm ²):	10 - 20
Shear strength ISO 4587 (N/mm ²):	14 - 22
Impact strength ASTM D 950 (KJ/m ²):	15 - 20
Softening range:	+150°C
Refraction index n ²⁰ D:	similar to glass
Electrical resistivity DIN 53482 (Ω mm):	>10 ¹⁵
Dielectric strength ASTM D149 (kV/mm):	25
Dielectric constant DIN 53483 (1MHz):	3

Directions for use

When used as a 3D Printing Infiltrant

1. Coat or dip the parts in Loxeal 60R.
2. Allow the adhesive penetrate deeply before removing and let it dry (hanging over a device).
3. If liquid adhesive on the surface needs to be cured, Loxeal Attivatore 9 can be post applied.

When used as an adhesive

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 the 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 and handling

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.