

LOXEAL Istant 84FLEX

Description

Loxéal IS84FLEX is a low-viscosity, solvent-free, cyanoacrylate adhesive. Developed to provide outstanding flexibility compared to standard cyanoacrylates, it allows to bond flexible materials and to maintain the compression properties of the joint over time. Loxéal IS84FLEX provides rapid bonding of a wide range of substrates, including metals, soft plastics and rubbers. It is also suitable to bond surfaces such as leather and fabric. When bonding together dissimilar substrates, it can cope with differential thermal expansion and resist to thermal shocks. Good resistance to chemicals, oils and moisture. It is certified for biocompatibility according to ISO10993-5.

Typical physical properties

Composition:	ethyl cyanoacrylate
Colour:	clear
Viscosity Brookfield (+25°C - mPa s)	
Spindle 2, 20 rpm:	150
Specific weight (g/ml):	1,1
Shelf life:	12 months in original unopened packaging*
	*for bottles up to 500ml

Typical curing properties

Curing rate depends on the substrate used, on environmental conditions, such as the temperature and on the environmental humidity, on the gap and on the quantity of adhesive.

Fixture time at +23°C, 50% RH (seconds)

NBR	2
EPDM	4
Abraded Mild Steel	5
Abraded Stainless Steel	20
Abraded Aluminium	5
ABS	5
PVC	5
PC	10
PMMA	5
PETG	5
PA6.6	5
PS	5
Paper	5
Fabric	15
Leather	20-40

Typical proprieties of cured material, after 24h, @+25°C

Shear strength ISO4587 (MPa):

Abraded mild steel	13 CF
Abraded Aluminium AL 2014	11 CF
Stainless steel 304	17 CF
PMMA	5 SF
PC	5 SF
PVC	8 SF
ABS	7 SF

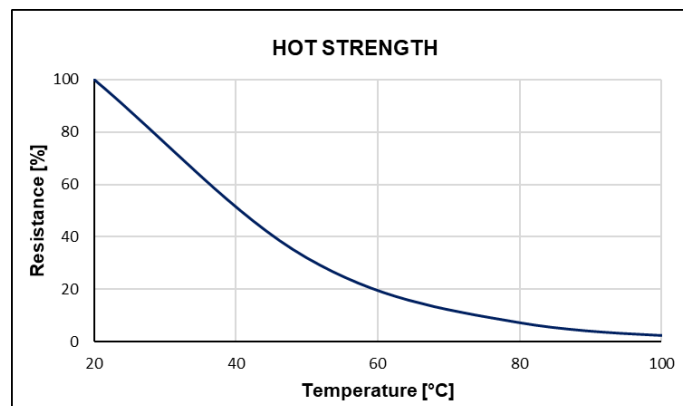
CF=Cohesive failure
 SF=Substrate failure

Elongation at break (ASTM D638): 150%

Environmental resistance

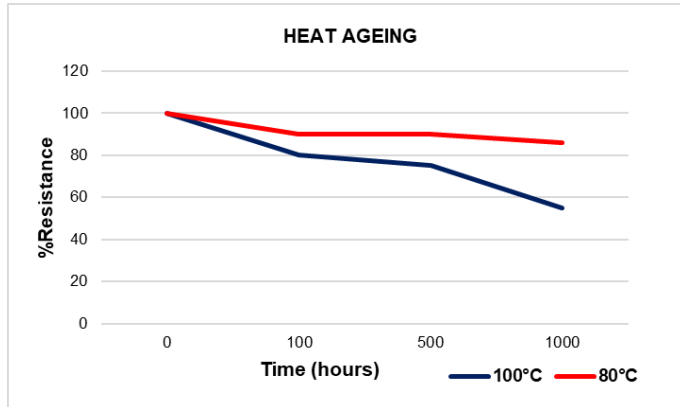
Hot strength

The graph below shows the mechanical strength of the product (%) vs. temperature. Specimen steel, cured 72h @+25°C, tested according to ISO4587.



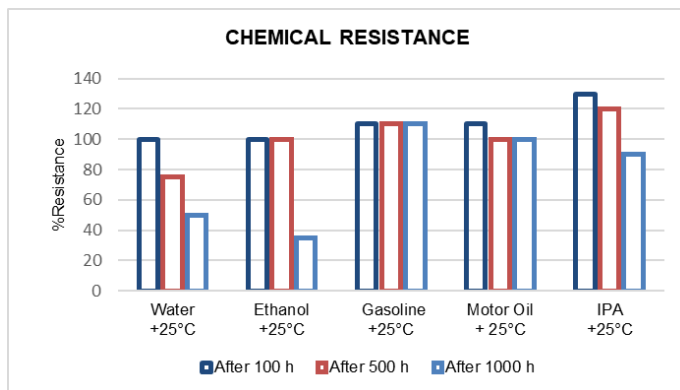
Heat ageing

The graph below shows the strength resistance behavior as a function of temperature/time.
Specimen steel, cured 72h @+25°C, aged at the given temperature and tested at +25°C according to ISO4587.



Chemical resistance

The graph below shows the strength resistance retained after immersion in different substances.
Specimen steel, cured 72h @+25°C, aged at the given temperature and tested at +25°C.



Heat and moisture resistance

The table below shows the shear strength retained after ageing at +50°C e 90%RH.
Steel and PC specimen, cured 72h @+25°C, aged at the given conditions and tested at +25°C"

Materials	% initial strength at +25°C				
	T(°C)	RH%	100h	500h	1000h
Abraded Steel	50°C	90%	95%	85%	80%
PC	50°C	90%	100%	110%	110%

Directions for use

• **Surface preparation**

For best results lightly scratch the surfaces of metal and plastic substrates (not recommended for polyolefins). Degrease and clean with a cleaner suitable for the substrate (i.e. Loxeal Cleaner 10 or Acetone or Isopropyl Alcohol) and let dry.

• **Assembling**

Apply the adhesive on one surface and couple the parts as soon as the deposition is complete. Press and hold the parts in place for the time necessary for the fixing. Do not apply stress to the joint before functional strength is achieved. When large gaps are present between parts, curing speed is reduced. Use Activator 9 to increase curing speed. If adhesive is present outside the joint area, apply Loxeal Activator 9 to accelerate the reaction of adhesive exposed to air.

• **Cleaning**

Remove any excess of product outside the bonding area. Application tools and dosing systems shall be cleaned before the product is hardened. Cured product can be removed mechanically or using Loxeal CR1 or CR2 following the instructions in their TDS.

Storage

We recommend to store product at a temperature between +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. This adhesive is not approved for usage neither with pure nor with gaseous oxygen. It is not suitable to be used as a sealant for chlorine and other strong oxidizing agents.

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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