

Description

Loxéal 4690 is a single-part, epoxy adhesive, suitable for bonding metal surfaces and composite materials. It has been designed to be non-sagging, (even at elevated temperatures), allowing the product to be used in gaps and on vertical surfaces. Typical cure profile is in the range of +130°C/+150°C. Fast curing could be obtained by induction on Fe materials.

Loxéal 4690 is also suitable for metal fastenings replacing and for welding thanks to its elevated performances. It provides high impact, peeling and tensile strength.

Physical properties

Composition :	epoxy resin
Colour :	black
Viscosity (+25°C - Pa s) :	200 - 300 thixo
Specific weight (+25°C - g/ml) :	1,2
Gap filling :	5 mm
Shelf life :	12 months between +2°C and +7°C

Curing performance

Curing time :		
Temperature :	+130°C	≥ 60 min
	+150°C	≥ 45 min
Induction :		< 3 min

Curing time is affected by type of substrate (heat transmission), and by gap to be filled. It will also depend on time needed by the adhesive to reach this temperature - for example, large assemblies or crowded oven will require longer to reach full cure.

Alternative methods for fast curing include induction, infrared lamps and hot air guns.

Curing properties (typical values)

Shear strength (ISO 4587) :	> 18 N/mm ²
Shear strength (ISO 4587) at +150°C :	> 12 N/mm ²
Peeling strength (ISO 4578) :	80 - 150 N/25mm
Shore D Hardness :	75 - 85
Temperature range :	-40°C +180°C

Surface preparation

Clean and degrease with Loxéal Cleaner 10 before applying the adhesive.

Some metals such as aluminium, copper and its alloys will benefit from light abrasion with emery cloth (or similar), to remove the oxide layer.

Directions for use

- The adhesive should be dispensed from the cartridge via the nozzle supplied.
- Apply the adhesive to one surface avoiding to entrap air.
- Assemble parts applying enough pressure to ensure the adhesive spreads to cover the complete area to be bonded.
- Use a jig / clamp to prevent parts moving during polymerisation.

Storage

Store 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 Loxéal Technical Service.

Safety and handling

Consult Material Safety Data Sheet before use.

Note

The data contained herein, obtained in Loxéal laboratories, are given for information only; if specifics are required, please contact Loxéal Technical Department. Loxéal ensures abiding quality of supplied products according to its own specifics. Loxéal cannot assume responsibility for the results obtained by others which methods are not under Loxéal control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Loxéal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxéal products. Loxéal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.