

LOXEAL 4500

Description

It is a high viscosity single-part heat cured epoxy adhesive with excellent adhesion to metal surfaces, ferrites, ceramics as well as composite materials. Curing by induction it is allowed in seconds on Fe materials. High impact and peeling strength. This material requires heat in the range between +130°C and +200°C to cure it.

It has been designed to be non-sagging (even at elevated temperatures), allowing the product to be used in gaps and on vertical surfaces.

Physical properties

Composition:	epoxy resin	
Colour:	grey	
Viscosity (25°C – mPa s)	1.000.000 – 6.000.000	
Specific weight (25°C - g/ml):	ab.1,5	
Gap filling:	3 mm	
Shelf life:	6 months between +5°C and +7°C	

Curing performance

Curing time:		
Temperature:	+130°	30 – 40 min
	+150°	15 – 20 min
Induction:	10 – 20 s	

Actual cure times will depend on the time it takes for the adhesive to reach this temperature - for example, large assemblies or a crowded oven will require longer to reach full cure. Alternative, quicker methods of curing include induction, hotplates, infrared lamps and hot-air guns.

Curing properties

Shear strength(ASTM D-1002):	> 18 N/mm ²
Shear strength(ASTM D-1002):	> 12 N/mm ²
at + 150°C	
Shore D Hardness:	80
Temperature range:	-40 +180°C till to +200°C

Surface preparation

Surfaces should be clean, dry and grease-free before applying the adhesive. Loxeal Cleaner 10 is recommended for the degreasing of most surfaces.

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 (this can be cut to give the appropriate sized bead to cover the bond area).

Apply the adhesive to one surface and avoid entrapping air.

Assemble parts applying sufficient pressure to ensure the adhesive spreads to cover the entire bond area.

Use a jig / clamp to prevent parts moving during cure.

It is advisable not to disturb the joint until the adhesive is fully cured.

Storage

Keep product in a fridge at a temperature between +5°C and +7°C. To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact Loxeal Technical Service

Safety and handling

Consult Material Safety Data Sheet

Note

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