Technical Datasheet

Create Date: 03 01 2018 - Seite 1/2



Liquid Metal 2C-Adhesive



with a high solids content, pasty very short pot life, fast-curing gap-filling, residual elastic

Liquid Metal 2C-Adhesive is ideal for repairs and bondings with larger bonding gaps or bigger tolerances. The gap filling properties make it suitable for rough and poorly fitting surfaces but also to fill in cracks, cavities and unlevelled surfaces.

Liquid Metal 2C-Adhesive can be used on numerous materials such as metal, plastic, fibre reinforced materials, ceramics, glass, stone and wood.

Technical Data

Composition pasty consistency, crack-filler Colour grey Mixing ratio by weight (Resin / Hardener) 1:1 Density of the mixture 1,8 g/cm³ Viscosity of the mixture at 20°C (+68°F) 300.000 mPa·s Adhesive gap bridging up to max. 4 mm Processing temperatur +10 to +30 °C Curing temperature +6 to +40 °C Pot-life at 20°C (+68°F) for 10ml material 3 -4 min. Handling strength (35% strength) after 40 min. Capable of bearing mechanical loads (50% strength) after 2 h Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm² Alu sandblasted 19 N/mm²	Base	Epoxy resin highly filled
Mixing ratio by weight (Resin / Hardener) Density of the mixture 1,8 g/cm³ Viscosity of the mixture at 20°C (+68°F) 300.000 mPa·s Adhesive gap bridging up to max. 4 mm Processing temperatur +10 to +30 °C Curing temperature +6 to +40 °C Pot-life at 20°C (+68°F) for 10ml material 3 -4 min. Handling strength (35% strength) after 40 min. Capable of bearing mechanical loads (50% strength) after 2 h Medium strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted	Composition	pasty consistency, crack-filler
Density of the mixture 1,8 g/cm³ Viscosity of the mixture at 20°C (+68°F) 300.000 mPa·s Adhesive gap bridging up to max. 4 mm Processing temperatur +10 to +30 °C Curing temperature +6 to +40 °C Pot-life at 20°C (+68°F) for 10ml material 3 -4 min. Handling strength (35% strength) after 40 min. Capable of bearing mechanical loads (50% strength) after 2 h Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	Colour	grey
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Processing temperatur +10 to +30 °C Curing temperature +6 to +40 °C Pot-life at 20°C (+68°F) for 10ml material 3 -4 min. Handling strength (35% strength) after 40 min. Capable of bearing mechanical loads (50% strength) after 2 h Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	Viscosity of the mixture at 20°C (+68°F)	300.000 mPa·s
Curing temperature +6 to +40 °C Pot-life at 20°C (+68°F) for 10ml material 3 -4 min. Handling strength (35% strength) after 40 min. Capable of bearing mechanical loads (50% strength) after 2 h Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	Adhesive gap bridging up to max.	4 mm
Pot-life at 20°C (+68°F) for 10ml material 3 -4 min. Handling strength (35% strength) after 40 min. Capable of bearing mechanical loads (50% strength) after 2 h Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	Processing temperatur	+10 to +30 °C
Handling strength (35% strength) after 40 min. Capable of bearing mechanical loads (50% strength) after 2 h Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	Curing temperature	+6 to +40 °C
Capable of bearing mechanical loads (50% strength) after 2 h Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at 20 N/mm²	Pot-life at 20°C (+68°F) for 10ml material	3 -4 min.
Final strength (100%) after 24 h Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted	Handling strength (35% strength) after	40 min.
Medium strength of the pure epoxy resin according to DIN 53281-83 Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted	Capable of bearing mechanical loads (50% strength) after	r 2 h
Pressure 10 Mpa Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	Final strength (100%) after	24 h
Pull 24 Mpa Bending 58 Mpa E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted	Medium strength of the pure epoxy resin according to DIN	N 53281-83
Bending 58 Mpa	Pressure	10 Mpa
E-Modul 4.000 - 4.500 Mpa Shore hardness D 70 Medium shear strength according to DIN 53283 at 20 N/mm²	Pull	24 Mpa
Shore hardness D 70 Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	Bending	58 Mpa
Medium shear strength according to DIN 53283 at Steel sand blasted 20 N/mm²	E-Modul	4.000 - 4.500 Mpa
Steel sand blasted 20 N/mm²	Shore hardness D	70
	Medium shear strength according to DIN 53283 at	
Alu sandblasted 19 N/mm²	Steel sand blasted	20 N/mm²
	Alu sandblasted	19 N/mm²

PVC hard-roughened	11 N/mm²
Linear shrinkage	0,3 %
Temperature resistance	-50 to +145 °C

Surface pre-treatment

To ensure a perfect bond, the surfaces to be joined must be clean and dry.

Processing

Liquid Metal 2C-Adhesive can be processed directly from the double cartridge. Reject the first centimetre of the dosed bead. Mix the product thoroughly. Apply adhesive mixture quickly to only one of the surfaces to be bonded. Join both surfaces immediately afterwards.

Storage

When kept at a constant room temperature of about +20°C and unopened in dry conditions, Epoxy Adhesives will keep for at least 18 months. Avoid direct sunlight. If these storage instructions are disregarded, the storage life will be reduced to 6 months. Epoxy resins are fundamentally liable to crystallise at temperatures of less than +5°C. This effect is accentuated by wide variations in temperature such as can frequently occur during transport in winter. This also has a negative effect on working qualities, curing and technical details, although these effects can be reversed by warming up to a maximum of +50°C (no naked flame). In the case of Epoxy Adhesives, careful selection and combination of the base resins (bisphenol A and F) ensures a reduction of crystallisation.

Safety and health

When using products, the physical, safety technical, toxicological and ecological data and regulations in our EC safety data sheets must be observed.