

Plastic-Mastic 531.1/531.4

Fields of application

- Manufacture of filter inserts in the field of hydraulic and automotive filters
- Manufacture of strong metal bonding
- Universally applicable for bonding and sealing in the metal and plastic processing industry

Properties of the adhesive

Two-component system, solvent-free

Base: Epoxy
 Comp. A: KLEIBERIT PM 531.1
 Comp. A (slightly thixotropic): KLEIBERIT PM 531.4
Component B: KLEIBERIT PM 531.2

Mixing ratio:
 Comp. A : Comp. B 3.0 : 1 parts by weight
 Comp. A : Comp. B 2.5 : 1 parts by volume

Specific weight at 20°C:

Comp. A 1.75 ± 0.02 g/cm³
 Comp. B 1.44 ± 0.02 g/cm³
 Mixture approx. 1.66 g/cm³

Colour of the mixture: grey

Viscosity -Brookfield RVT sp. 7/20 rpm at 20°C:

Comp. A: 531.1 60,000 ± 10,000 mPa s
 Comp. A : 531.4 100,000 ± 20,000 mPa s
 Comp. B: 531.2 115,000 ± 20,000 mPa s

Consistency: suitable for casting and processing with a spatula

Pot life: Approximately 75 min. with a mixture of 100 g at 20°C, pot life is extended at lower temperatures and shortened at higher temperatures

Setting time (also see "Curing Process"): The parts to be bonded can be hot or cold cured; process, setting time and curing time depend on hot or cold curing.

Identification:

Comp A: subject to identification according to EU regulations, epoxy resin with an average molecular weight of ≤ 700.

Comp. B: subject to identification according to EU regulations, contains free aliphatic polyamines.

Please observe the protective measures recommended for handling with epoxy resins.

(see our safety data sheet)

Properties of the bond

- Good adhesion under heat and cold stress, tested in a temperature range from -50°C to +100°C
- Good resistance to chemicals, e. g. petrol, hydraulic liquids, brake liquids

Application techniques

The materials to be bonded must be dry and free from dust and grease. Remove rust and oxide spots from the metals. Grinding or sand blasting ensures an optimal bonding of the adhesive to the metal surface. For cleaning of the materials acetone is recommended. Do not process below +10°C.

Adhesive application:

Mix Component A and B carefully in the correct mixing ratio. The adhesive is applied either manually by means of a spatula or mechanically by means of standard two-component mixing and proportioning devices. Because of the viscosity we recommend, when using large containers, to pump the components by means of a reciprocating pump and extraction device. Clamp the parts to be bonded by means of an appropriate clamping device.

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Curing process:

The setting time at normal temperature (approximately 20°C) is about 6 hours. The final strength is achieved after 72 hours. At higher temperatures (e. g. 100°C) the setting time is about 5 minutes. The final strength is achieved after approx. 2 hours and when cooled down to normal temperature.

This information serves as guiding values. Specific data depends on the individual object and must be established according to the conditions given.

Cleaning

Tools and mixing and dosing devices can be cleaned with KLEIBERIT Cleaner 820.0 toluene-free. Please observe instructions given by the machine manufacturers.

Packaging

KLEIBERIT Plastic-Mastic 531.1, Comp. A:

Metal pail, 6 kg net

KLEIBERIT Plastic-Mastic 531.2, Comp. B:

Can, 2 kg net

KLEIBERIT Plastic-Mastic 531.1, Comp. A:

Metal pail, 30 kg net

KLEIBERIT Plastic-Mastic 531.4, Comp. A:

Metal pail, 30kg net

KLEIBERIT Plastic-Mastic 531.2, Comp. B:

Metal pail, 10 kg net

KLEIBERIT Cleaner 820.0 Toluene-free:

Carton with 12 bottles at 900 ml net each

Metal canister, 4.5 kg net

Metal can, 22.0 kg net

Storage

KLEIBERIT Plastic-Mastic 531.1, Comp. A and Comp. B can be stored in factory sealed containers at 20°C for approximately 12 months.

Version MF 1013

Waste Disposal

Disposal of contents and/or containers should comply with all applicable federal, state and local regulations.

Our containers are made of recyclable material.

Service

Our application department may be consulted at any time without obligation. The statements made herein are based on our experience gained to date. They are to be considered as information without obligation. Please test and establish for yourself the suitability of our products for your particular purposes. No liability exceeding the value of our product can be derived from the foregoing statements. This also applies to the technical consultancy service which is rendered free of charge and without obligation.