

KLEIBERIT 521

2C-PUR-Foam

Field of application

- Manufacturers of air filters when using closed moulds.

Advantages

- Good flow properties
- Fine-pored structure
- Easily removed from mould
- Efficient

Physical properties of the foam

Apparent density, free foamed approx. 250 kg/m³

The following values were obtained from a test piece with an apparent density of 330-350 kg/m³.

Tensile strength

(according to DIN EN ISO 1798)

initial state:	approx. 0.7 N/mm ²
after 48 hours of storage at 110°C:	approx. 0.75 N/mm ²
after hydrolysis storage:	approx. 0.4 N/mm ²

Elongation at rupture

(according to DIN EN ISO 1798)

initial state:	approx. 105%
after 48 hours storage at 110°C:	approx. 115%
after hydrolysis storage:	approx. 130%

Hydrolysis test: 10 days storage of test piece in distilled water at 80°C.

Determination of permanent set

(according to DIN EN ISO 1856)

after 40% deformation, 30 minutes after discharge	
72 hours storage at 23°C:	approx. 4 %
22 hours storage at 70°C:	approx. 4 %

Tear strength

(according to DIN 53 507) approx. 0.7 N/mm

Hardness, Shore A

(according to DIN 53 505) 20-25

Properties of the foam

Two component system, solvent free

Base: polyurethane
Component A: KLEIBERIT 521.1
 KLEIBERIT 521.3
 KLEIBERIT 521.4
 KLEIBERIT 521.8
 KLEIBERIT 521.9

Component B: KLEIBERIT 521.2

Mixing ratio: Comp. A : Comp. B =
 100 : 38 parts by weight

Specific weight: Comp. A = 1.15 ± 0.02 g/cm³
 Comp. B = 1.19 ± 0.02 g/cm³

Viscosity at 20°C

Brookfield RVT

spindle no. 3 at 20 rpm: Comp. A = 2,800 ± 800 mPa s

spindle no. 1 at 20 rpm: Comp. B = 200 ± 50 mPa s

Colour of the mixture: 521.1: orange
 521.3: natural (beige)
 521.4: salmon pink
 521.8: black
 521.9: blue

Process times: Time for inserting:
 approx. 20 seconds
 Time for removal:
 approx. 8 minutes

Identification: see our safety data sheet

Application techniques

Homogenise Components A and B before use.

The moulding compound with foaming effect is processed by means of a two-component mixing and dosing device equipped with a dynamic mixing head. The storage container for Comp. A must be fitted with a stirring device and an air supply at the base. Alternatively, a two component plant fitted with an aeration unit and facility for recirculation of Component A and B can also be used. We would be pleased to recommend manufacturers for such units. In order to obtain a fine-pored and uniform structure it is necessary to aerate component A with 3 % to 5% maximum atomised air. Filling with atomised air is required with each refill of Component A to storage tank and after prolonged interruption.

The degree of aeration will determine the specific density measurable with a pycnometer

Dry air only may be used for aeration, and for the compressed air supply for cleaning and transferral purposes to and from the storage tank. In this case, 'dry air' is understood to be

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air which has been dried by means of a refrigeration dryer or an absorption dryer. Maximum water content of the compressed air used = 5 g/m³ at 6 bar pressure. If the water content (fluid or gaseous) is too high, it will alter the product!

The most favourable work temperature is 20-25°C. The higher temperature accelerate, lower temperatures slows setting. The mould must be clean and sprayed with release agent. In order to achieve a uniform setting of the moulding compound it is recommended to heat the mould to around 35 to 40°C. Fill the moulding compound into the mould evenly and immediately insert the filter material.

Cleaning

Tools and mixing and dosing devices can be cleaned and rinsed with KLEIBERIT 820.0. Please follow the instructions of the machine manufacturer.

Packaging

KLEIBERIT 521.1, 521.3, 521.4, 521.8 and 521.9

Comp. A :

steel drum, 240 kg net
plastic container, 1,000 kg net

KLEIBERIT 521.2 Comp. B :

metal can, 31 kg net
metal drum, 240 kg net

KLEIBERIT 820.0

metal can, 22 kg net

Additional packaging available upon request.

Component A (521.1, 521.4, 521.8, 521.9) is not frost sensitive.

Component B (521.2) is frost sensitive and must not be transported or stored below -5°C.

Version 08/11/2021 lz; replaces previous data sheets

Storage

KLEIBERIT 521 - component A and B - can be stored in factory sealed containers for approx. 9 months. Protect from humidity!

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.