

Foamed Air Filter Moulding Compound

526.0

Field of application

- Manufacture of sealing lips and end caps for air filters

Advantages

- Good flowing properties
- Fine-pored structure
- Good elasticity when hot or cold

Properties of the moulding compound

Two component system, solvent free

Base: Polyurethane

Component A: Moulding Compound 526.0

Component B: Moulding Compound 526.6

Mixing ratio:

Comp. A : Comp. B 5.5 : 1 parts by weight
or approx. 5.0 : 1 parts by volume

Specific weight

Comp. A approx. 1.32 g/cm³
(without air charge)
Comp. B approx. 1.19 g/cm³

Viscosity at 20° C

Brookfield RVT,
sp. 4, 20 rpm:

Comp. A 4,500 ± 1,000 mPa s
Comp. B 250 ± 50 mPa s

Colour of the mixture: black (other colours possible)

Apparent density: approx. 500 kg/m³

The apparent density is dependent on the layer size of the moulding compound and the temperature of moulds and components. As a rule: large layer size and high temperature = low apparent density!

Small layer size and low temperature = high apparent density!

Identification:

Comp. B: subject to identification according to the EU regulations, contains 4.4' diphenyl methane diisocyanate,
(see our safety data sheet)

Application techniques

Homogenise Components A and B in the container before extraction.

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. 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 pyknometer

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 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 working temperature is 20 - 25 °C. Higher temperatures accelerate, lower temperatures will reduce the time required for 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 approx. 35 to 40 °C.

Fill the moulding compound, into the mould evenly. Round moulds need to be mounted onto a rotating disc and the moulding compound injected near the inner edge of the mould. Due to its very good flow properties the moulding compound spreads by means of centrifugal force. Immediately thereafter, the pleated filter paper is inserted.

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Guiding values for processing:

50 g mixture in a cup at 20 °C:

liquid phase: approx. 25 seconds
cured after: approx. 75 seconds
removal after: approx. 5 minutes

Mixture in an aluminium mould at 30 °C,
filling height: approx. 3 mm
paper insertion time: approx. 25 seconds
removable after: approx. 7 minutes

Physical properties of the moulding compound

Apparent density, free foamed: 450-500 kg/m³

Apparent density,
foamed in a form: approx. 550 kg/m³

The following measurements were conducted on samples with apparent density of 565 kg/m³.

Tensile strength according to DIN EN ISO 1798

Initial state: approx. 0.4 N/mm²

After 48 hours
storage at 110 °C: approx. 0.45 N/mm²
After hydrolytic
storage: approx. 0.3 N/mm²

Elongation at tear according to DIN EN ISO 1798

Initial state: approx. 105%

After 48 hours
storage at 110 °C: approx. 125%
After hydrolytic
storage: approx. 170%
Hydrolysis storage = 10 days storage 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. 1.5 %
22 hours storage at 70 °C: approx. 8.5 %

Tear strength according to DIN EN ISO 34-1, Method A: approx. 0.5 N/mm

Hardness, Shore A as per DIN EN ISO 868: 20-25

Please take into consideration linear and physical contraction when having the moulds made. Cooling down of the reaction and mould temperature to room temperature. It is advisable to test beforehand.

Cleaning

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

Packaging

KLEIBERIT Air Filter Moulding Compound 526.0

Comp. A :

steel drum, 250 kg net

KLEIBERIT Air Filter Moulding Compound 526.6

Comp. B :

steel drum, 250 kg net

KLEIBERIT Cleaner C 820.0 toluene free:
metal can, 22 kg net

Additional packaging sizes upon request

Storage

KLEIBERIT Air Filter Moulding Compound 526.0, components A and B, can be stored in factory sealed containers for at least 6 months. The most favourable storage temperature is 15 - 25 °C. Component A needs to be homogenised before it is taken out of the container. Both components need to be protected from humidity: Component A is hygroscopic; if containers are open it may absorb humidity from the air which would cause a more intensive foaming effect. Exposure to humidity causes component B to crust and form a skin.

Component A is frost resistant.

Component B is not frost resistant at temperatures under - 5 °C.

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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.