

Neopor® F 5300 Plus BMB

Application

Neopor® F 5300 Plus BMB is derived from renewable feedstock by using the biomass balance method (BMB).

It is used to manufacture silver-gray foams with identical properties and processing parameters as the conventional Neopor® F 5300 Plus, but with a reduced CO₂ footprint.

For the production of expanded foams having fire characteristics in conformity with:

- DIN 4102-B1 (flame-retardant)
- EN ISO 13501-1-E

For additional information pertaining to the fire behavior please contact the local BASF representative.

Neopor® F 5300 Plus BMB

For blockmolding, shapemolding (minimum wall thickness 30mm) and loose fill applications.

Product description

Expandable polystyrene (EPS) with infrared reflecting additive. Contains uniformly distributed polymeric flame retardant.

Blowing agent (pentane) content approx. 5.3% by weight.

| Product | Bead size range | Typical bead size |
|-------------------------|-----------------|-------------------------------|
| Neopor® F 5300 Plus BMB | 0.9 - 1.4 mm | 0.9 - 1.4 mm (≥95% by weight) |

Physical form

Neopor® F 5300 Plus BMB is supplied in the form of a lentil-shaped granulate.

Storage

Neopor® is usually supplied in cardboard containers (octabins). It can be stored in these unopened receptacles for three months before processing.

The octabins should not be exposed to weather conditions (rain, water, snow, frost, and sunlight) and must be protected from damage. They should always be stored in a cool place (below 20 °C if possible) to minimize loss of blowing agent.

Once containers have been opened, their contents should be used as soon as possible. In the meantime the octabins should be kept tightly sealed.

It is not recommended to stack octabins more than one layer high. In case of double-stacking octabins under controlled conditions, a strong plywood board must be placed between the stacked containers.

Octabins covered with a plastic hood and/or shrink-wrapped should never be double stacked.

| Product | Usual bulk density-range | Recommended intermediate aging period | Achievable bulk density by single step pre-expansion |
|-------------------------|----------------------------|---------------------------------------|--|
| Neopor® F 5300 Plus BMB | 12* - 20 kg/m ³ | 10 - 48 h | 17 kg/m ³ |

*by double pass expansion

Processing

The raw material must not be mixed with other raw materials in order to comply with the requirements of fire test certificates.

Neopor® is processed into foam in 3 steps.

■ Preexpansion

In state-of-the-art pre-expanders, Neopor® can be expanded without any problems to the densities mentioned earlier in this leaflet. Lower densities can be achieved by double step expansion.

■ Intermediate aging

The intermediate aging time should be selected depending on the bulk density, the ambient temperature and the intended application. It is usually between 10 and 48 hours.

■ Expansion

Neopor® can be molded in commercially available block and shape molding machines. If recycling material is to be added, it must be ensured that the density of the recycling material is as closely as possible to the preexpansion density in order to avoid separation effects in the molds. Moreover it is recommended to process the recycling material in a dedusting system before use.

Further information about the properties and uses of Neopor® is given at www.neopor.de

Packaging

Sheets and molded parts made of Neopor® must not be packed in transparent films. The use of an opaque/white or dyed film is strongly recommended.

Safety precautions

It should be noted, that during the processing and storage of Neopor®, as well as of foams produced from it, ignitable blowing agent/air mixtures may be formed by diffusing blowing agent (pentane, LEL 1.3 vol%).

Therefore, adequate ventilation must be provided at all times. All conceivable ignition sources (open flames, welding sparks, electrical sparks etc.) must be kept away and electrostatic charging must be avoided. Smoking must be strictly prohibited!

It is forbidden to transport Neopor® raw material or Neopor® foam in unventilated or closed vehicles. Further information is given in the respective safety data sheet.

Industrial hygiene

Pentane escapes during storage and processing of Neopor®. The workplace should therefore be well ventilated. Especially when hot-wire cutting the foams, it is important to ensure that the vapours produced are extracted, as they contain small amounts of styrene in addition to pentane.

The regionally applicable workplace concentration limits for styrene and pentane must be observed.

Foodstuffs legislation

Foams made of Neopor® shall not be used in direct contact with food.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.