

Styropor® P 426 C BMB



Application

Styropor® P 426 C BMB is derived from renewable feedstock by using the biomass balance method (BMB).

It is used to manufacture packaging solutions with identical properties and processing parameters as the conventional Styropor® P 426 C (particularly short cycle times) with reduced CO₂ footprint.

Product description

Expandable polystyrene (EPS).
Blowing agent: pentane (~6.0%).

Form as supplied

Styropor® P 426 C BMB is supplied in the form of rounded particles.

Product	Bead size range	Typical bead size	
Styropor® P 426 C BMB	0.4-0.7 mm	0.3-0.8 mm by weight	≥92 %

Storage

Styropor® P 426 C BMB 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.

Processing

Styropor® P 426 C BMB is converted to expanded foam in 3 stages.

■ Preexpansion

The lowest achievable bulk density depends on the type and mode of operation of the preexpansion equipment. The bulk density range of 18 to 50 kg/m³ usual for further processing to form moldings is reliably controlled in technically sound, discontinuously operating installations. The preexpanded material has good free-flow properties and can be conveyed pneumatically without problem.

■ Intermediate aging

For the bulk densities of 18 to 30 kg/m³ frequently encountered in practice intermediate aging times of 4 to 24 hours are usual.

■ Final expansion

Styropor® P 426 C BMB is foamed out to expanded foam in commercial automatic molding machines.

Safety notes

It should be noted, that during the processing and storage of Styropor®, 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!

The contents of open containers should be processed quickly. At other times the containers are to be kept well sealed. The transportation of Styropor® or of expanded foams freshly made from it in unventilated or closed means of conveyance is not permissible. Further information is included in the respective product safety data sheet.

Biological action

During the storage and in the processing of Styropor® pentane escapes. Especially when cutting the expanded foams with heated wires care is to be taken to remove the vapors arising by suction, since apart from pentane they also contain small amounts of styrene.

The maximum allowable concentration values for styrene and for pentane are to be observed.

Expanded foams made from Styropor® have been manufactured and processed for several decades. In this time no effects harmful to health whatsoever have been ascertained.

Food legislation

For additional information pertaining to the food legislation please contact the local BASF representative.

Note

The information in this publication is based on our current knowledge and experience. This information does not relieve processors of the need to carry out their own tests and trials due to the profusion of possible effects when processing and applying our products. No legally binding assurance of certain properties or of suitability for a specific purpose can be inferred from our information. Recipients of our products are themselves responsible for observing any proprietary rights and existing laws and regulations.