

Technical Leaflet | March 2016

® = registered trademark of BASF SE

Styropor® P 326

Application

For the production of expanded foam moldings having a wall thickness of at least 8 mm.

Product description

Expandable polystyrene (EPS)
(blowing agent: pentane).

Form as supplied

Styropor® P 326 is supplied in the form of rounded particles.

Bead size range:	0.7-0.9 mm	
Sieve analysis:	> 1.0 mm	max. 5%
	0.5-1.0 mm	min. 93%
	< 0.5 mm	max. 2%

Storage

Styropor® P 326 should always be stored in a cool place, i. e. at temperatures up to a maximum of 20 °C. Styropor® is normally supplied in cardboard containers. It can be stored in the unopened original receptacles for one month respectively before processing.

The receptacles have to be protected against the effects of weather (rain, snow, frost, run) and against damage.

Processing

Styropor® P 326 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 22 kg/m³ usual for further processing to form moldings is reliably controlled in technically sound, discontinuously operating installations. Lower bulk densities are achieved by preexpansion at a slight excess pressure in equipment operating in batch mode. The preexpanded material has good free-flow properties and can be conveyed pneumatically without problem.

Intermediate aging:

For the bulk densities of 18 to 22 kg/m³ frequently encountered in practice intermediate aging times of 10 to 24 hours are usual.

Final expansion:

Styropor® P 326 is foamed out to expanded foam in commercial automatic molding machines. Moldings can be produced at relatively high mold temperatures with short cycle times and low specific steam consumption. Even in the case of complicated molds good mold-filling can be achieved.

Safety notes

It is to be noted that in the storage and processing of Styropor® and of the expanded foams manufactured from it, flammable mixtures of blowing agent (pentane) and air can be produced due to blowing agent diffusing out and therefore all conceivable sources of ignition are to be kept away (naked flames, welding sparks, electric sparks, avoidance of electrostatic charging). A ban on smoking is to be observed without fail!

Information about the safety precautions necessary in processing may be obtained from the brochure "Fire safety during processing". In addition the "Richtlinien für die Vermeidung von Zündgefahren infolge elektrostatischer Aufladungen" (Guidelines for the avoidance of fire hazards as a result of electrostatic charges), BG Chemie, 7th Edition, 2004, are to be observed.

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 leaflet.

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.

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.

Food legislation

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