

Styropor® P 24 Speed Series



Application

For the production of expanded foams without fire protection requirements.

Styropor® P 224 Speed	Production of expanded foam blocks and thick-walled moldings with short cycle times
Styropor® P 324 Speed	Production of food and technical packaging with short cycle times, Applications with medium to high density
Styropor® P 424 Speed	Production of food and technical packaging with short cycle times, Applications with high density

Product description

Expandable polystyrene (EPS) with reduced blowing agent (blowing agent: pentane)

Product	Bead size range	Sieve analysis	
		> 1.4mm 0.7 - 1.4mm < 0.7mm	max. 1% min. 98% max. 1%
Styropor® P 224 Speed	1.0 - 1.3mm	> 1.12mm 0.5 - 1.0mm < 0.5mm	max. 3% min. 94% max. 3%
Styropor® P 324 Speed	0.7 - 1.0mm	> 0.8mm 0.3 - 0.8mm < 0.3mm	max. 5% min. 95% max. 3%

Physical form as supplied

Styropor® P 24 Speed is supplied in the form of round beads.

Storage

Styropor® P 24 Speed products should always be stored in a cool place, i.e. as far as possible at temperatures up to a maximum of 20 °C to keep losses of blowing agent low. Styropor® is normally supplied in cardboard containers. It can be stored in these unopened receptacles for 1 month respectively before processing.

The receptacles must be protected against the effects of weather (rain, snow, frost, sun) and against damage.

The contents of open containers should be processed quickly. At other times the containers are to be kept well sealed.

Product	Usual bulk density-range	Recommended intermediate aging time	Bulk density achievable in single pre-expansion
Styropor® P 224 Speed	16 - 30kg/m ³	10 - 48h	16kg/m ³
Styropor® P 324 Speed	18 - 35kg/m ³	10 - 48h	18kg/m ³
Styropor® P 424 Speed	22 - 40kg/m ³	10 - 48h	22kg/m ³

Processing

Styropor® P 24 Speed are converted to expanded foam in 3 stages.

■ Pre-expansion and intermediate aging

The lowest achievable bulk density depends on the type and mode of operation of the pre-expansion equipment. The customary bulk density range for further processing to form molded parts or blocks is reliably controlled on technically sound, discontinuously operating installations. The intermediate aging period should be chosen as a function of the bulk density, the ambient temperature and the planned application.

■ Final expansion

Styropor® P 24 Speed products are finally foamed out to expanded foam in commercial block molds and automatic molding machines. Moldings can be manufactured at relatively high mold temperatures and with short cycle times and low specific steam consumption. Even in 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 because 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 regarding transports is given in the respective Technical Information Bulletin.

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 please refer to the Food Contact Declaration, available from your local BASF representative.

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.