

Technical Data Sheet

EPS HS321

EXPANDABLE POLYSTYRENE (EPS)

HS321 is one of the TPC Performance expandable polystyrene products range. It is a free flowing expandable polystyrene grade, consisting of spherical polystyrene beads containing pentane as the expansion agent. Expandable polystyrene (EPS) is normally expanded to achieve the low densities required for final step expansion. The typical density of this grade is around 22 kg/m³, but other densities are possible depending on applications and equipments. HS321 is especially high strength formulated to achieve low density foam without lumps during pre expansion. This grade is not fire retardant, so it is not suitable for building applications.

Applications:

High Density Block, Shape Molding HS321 is used as a multi-application packaging material for contour moldings with a minimum wall thickness of 10 mm. Properly processed EPS foam packaging made from HS321 provides high mechanical strength also with low densities. It is not hygroscopic and does not become friable in low temperatures. Molded EPS packaging parts have to act as shock absorbers and cushion their content against blows from outside, i.e. they have to absorb the energy released in an impact. The mainly closed cell structure of molded foam parts made from HS321 absorbs the impact stress as "deformation work". In this process the air enclosed in the cells is first compressed, while bigger impact forces may also deform or crack the cell walls.

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	(0.7-1) (>90%WT)
K-VALUE	--	SUNPOR 7.2.4	55
PANTANE CONTENT	WT%	SUNPOR 7.2.2	5.2%
EXPANDED DENSITY	KG/M3	SUNPOR 7.2.6	18-30
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	Less than 1000