

**Technical Data Sheet**

**EPS FC422**

EXPANDABLE POLYSTYRENE (EPS)

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 25 kg/m<sup>3</sup>, but other densities are possible depending on applications and equipments. 422FC is especially fast cycling and water proof 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. Because of its small bead size, 422FC is also used for contour moldings with a wall thickness of less than 10 mm. Molding with greater wall thicknesses permit short cooling periods. Properly processed EPS foam packaging made from 422FC provides good mould filling properties and high mechanical strength. It is not hygroscopic, and it 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 422FC 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 wall.

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	(0.5-0.7) (>90%WT)
K-VALUE	--	SUNPOR 7.2.4	55
PANTANE CONTENT	WT%	SUNPOR 7.2.2	>5%
EXPANDED DENSITY	KG/M3	SUNPOR 7.2.6	20-35
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	Less than 1000