

	TYPICAL DATA SHEET*	ISSUE DATE	23/Jan/2022
	EXPANDABLE POLYSTYRENE (EPS)	WWW.TPCO.IR	
	221HS	IRAN/TABRIZ/TABRIZ PETROCHEMICAL COMPANY/P.O.BOX:51745-354/TEL: +984134282612	

221HS 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. 221HS 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: Medium Density Block Low- and medium-density foam blocks made from 221HS are used as thermal insulation boards for construction applications without special requirements concerning flame resistance or as packaging blanks.

Packaging and storage: 221HS is shipped in jumbo bag or octabins (height 158 cm) on wooden pallets (115cm x 115 cm), containing 1000 kg net of material. The octabins are not weather or water-proof and must therefore not be exposed to outdoor conditions. In order to obtain the desired properties of 221HS, the raw material should be stored below 20 °C and be processed within 1 month.

Processing: Pre expansion with discontinuously operating, state-of-the-art pre expanders 221HS can be pre expanded to densities of approx. 22 kg/m³. Lower densities can be achieved by double pre expansion or in optimized machines. 221HS has been treated with an antistatic agent to prevent a buildup of electro-static charge during transport.

Intermediate aging: Intermediate aging should be between 10 and 48 hours.

Molding: 221HS can be processed in industry standard molding machines within a relatively wide range of steaming settings. If a regenerative agent is added care has to be taken that the density of the regenerative agent equals the pre expansion density as closely as possible to prevent segregation during production.

Typical Properties			
PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
BEAD SIZE	MM	SUNPOR 7.2.5 (MIN 90% BY WT)	(1-1.8)(>90%wt)
K-VALUE	—	SUNPOR 7.2.4	55
PENTANE CONTENT	WT%	SUNPOR 7.2.2	5.2%
EXPANDED DENSITY	KG/M3	SUNPOR 7.2.6	14-30
RESIDUAL MONOMER	PPM	SUNPOR 7.2.1	Less than 1000

*All above mentioned data are typical values and not to be construed as real specifications. Users should confirm results by their own tests. For more information about guaranteed items, please refer to S.S.S. (Standard Sales Specifications)