Atabeykral

Petrochemical Products

NAME: GPPS1160

Product Description:

GPPS1160 is a high heat resistance, high molecular weight crystalline polystyrene used in the extrusion industry. It is most suitable for production of oriented polystyrene (OPS).It is particularly useful for production of thick sheet by direct gassing, where it gives expanded sheets with high mechanical properties. GPPS1160 can be used in combination with HIPS7240 for the extrusion of sheet for hot-fill thermoforming application.

Applications:

GPPS1160 extrusion: Shower cabinets; Lighting thin films; Diluted with high impact polystyrene for thermoforming, it shows resistance against high temperatures. In line extrusion /thermoforming of transparent cups.

Direct gassing: Insulation board; Foamed sheet for thermoforming of fruit trays, meat trays, egg boxes.

Typical data: (Table)

Property	**Unit**	**Value**	**Test Method**
MFI (200°c/5kg)	g/10 min	2.5	ASTM D 1238
Styrene residual monomer	PPM	<500	CLGLABPSG004 (ATOFINA TEST METHOD)
Vacate softening point	°C	Min101	ASTM D 1525
Rockwell hardness	-	Scale L70	ASTM D 785
Tensile strength @ yield	MPa	-	ASTM D 638
Tensile strength @ break	MPa	48	ASTM D 638
Elongation @ break	%	3	ASTM D 638
Flexure modules	MPa	2900	ASTM D 790
Tensile modules	-	3200	ASTM D 638
Refractive index	-	1.591	ISO Method
Water Absorption	%	<0.1	ASTM D 570

Density of this grade is approximately:

1.04 gr/cm^3

Shrinkage of this grade in mould is approximately: (0.4-0.7%) (ASTM D 955) Ali tests are carried out at 23°C unless otherwise stated.
The above data are typical laboratory average. They are intended to serve as guides only.

Processing Conditions:
GPPS1160 can be processed under different conditions depending on machinery available and articles molded.
During processing of GPPS1160 small quantities of styrene monomer may be released into the atmosphere.
At styrene concentrations of 50 up to 100 ppm (TLV value for styrene monomer), no negative effects on health are expected.

Storage:
GPPS1160 should be stored in dry and dust free environment at temperature below 50°C.Exposure to direct sunlight should be avoided as this may lead to product deterioration.

Recycling & Environment:
End products made from this polymer can be recycled, incinerated or disposed of in land fill without detriment to the environment. With recycling, clean waste can be re-used for many less demanding applications.
Alternatively, with properly controlled and efficient incineration, preferably linked.
To heat or other energy recovery system, polystyrene's high calorific value will assist the combustion of municipal solid waste.
In landfill sites GPPS1160 does not degrade to produce voids, and does not emit dangerous gases or contribute to ground water pollution .If pigments or other additives are incorporated into this product at the processing stage, the above statements may not be fully valid.