



Esin Plastic Co./ IRAN

GENERAL PURPOSE POLYSTYRENE

GPPS: GP-14N

Applications:

- Extrusion Sheet
- Foam Extrusion
- Household

High molecular weight Polystyrene GP-14N is a heat resistant, good melt strength polystyrene for sheet and foam extrusion applications. It offers optimum mechanical strength and excellent thermal properties for food trays and suitable for profile, extrusion and embossed sheets, heat resistance thermoformed products and ideal for XPS insulation boards and XPS food packaging.

PROPERTY	UNIT	TEST METHOD	VALUE
Rheological:			
Melt Flow Index (200 °C - 5 kg)	GR/10MIN	ASTM D-1238	3
Thermal:			
VICAT Softening Point (10N)	°C	ASTM D-1525	103
Heat Distortion Temperature (0.45 Mpa)	°C	ASTM D-648	95
Mechanical:			
Notched IZOD Impact Strength (23°C)	KJ/M2	ASTM D-256	1.5
Unnotched IZOD Impact Strength (23°C)	KJ/M2	ASTM D-256	10
Tensile Strength at Break	MPa	ASTM D-638	45
Elongation at Break	%	ASTM D-638	2.5
Tensile Modulus	MPa	ASTM D-638	3100
Miscellaneous:			
Water Absorption	%	ASTM D-570	≤0.09
Moulding Shrinkage	%	ASTM D-955	0.4-0.8
Density	g/cm ³	ASTM D-792	1.04

Recommended Injection Molding Parameters		
Units	Value	Barrel Temperature
°C	170 - 180	Zone 1
°C	180 - 220	Zone 2
°C	210 - 260	Zone 3
°C	210 - 260	Zone 4
°C	210 - 260	Nozzle
°C	40 - 60	mold