

## GP110

General Purpose Polystyrene (GPPS) / Extrusion Sheet and Thermoforming

## PRODUCT DESCRIPTION

GP110 is a general purpose polystyrene (GPPS) with high melt strength, high stiffness and high transparency. It is designed for extrusion processing for thermoforming such as food packaging (XPS), appliance & electronic parts (refrigerator food tray).

## INDUSTRY

- Appliance & Electronic Parts
- Thermoforming Packaging

## PRODUCT FEATURE

- High Stiffness
- High Melt Strength
- High Transparency

## REGULATION COMPLIANCE

- FDA US 21 CFR 177.1640
- Commission Regulation (EU) No. 10/2011
- RoHS Directive 2011/65/EU
- REACH Regulation (EC) No. 1907/2006
- UL Yellow Card: E132283

PHYSICAL PROPERTY	TEST METHOD	UNIT	VALUE
Melt Flow Rate (200°C/5 kg)	ASTM D1238	g/10 min	2.0
Density (23°C)	ASTM D792	g/cm <sup>3</sup>	1.05
Mold Shrinkage	IRPC	%	0.4 – 0.6
MECHANICAL PROPERTY			
Tensile Strength at Yield (3.2 mm, 5 mm/min)	ASTM D638	kgf/cm <sup>2</sup>	545
Tensile Strength at Break (3.2 mm, 5 mm/min)	ASTM D638	kgf/cm <sup>2</sup>	545
Elongation at Break (3.2 mm, 5 mm/min)	ASTM D638	%	2
Tensile Modulus (3.2 mm, 1 mm/min)	ASTM D638	kgf/cm <sup>2</sup>	32,000
Flexural Strength (3.2 mm, 1.3 mm/min)	ASTM D790	kgf/cm <sup>2</sup>	1,050
Flexural Modulus (E-Modulus, 3.2 mm, 1.3 mm/min)	ASTM D790	kgf/cm <sup>2</sup>	33,000
Izod Notched Impact Strength (3.2 mm, 23°C)	ASTM D256	kgf-cm/cm	2.2
HARDNESS PROPERTY			
Rockwell Hardness (3.2 mm)	ASTM D785	M-Scale	80
THERMAL PROPERTY *Annealed			
Heat Distortion Temperature (3.2 mm, 18.6 kgf/cm <sup>2</sup> )*	ASTM D648	°C	94
Vicat Softening Temperature (3.2 mm, 1 kg, 50 °C/h)*	ASTM D1525	°C	103
Flammability (E132283)	UL94	-	HB (1.5 mm)

Conversion (1 kgf/cm<sup>2</sup> = 0.098 MPa | 1 kgf-cm/cm = 9.8 J/m)

Remark: The values presented above are typical laboratory, not to be construed as specifications and may vary within moderate ranges. The applicability or accuracy of this information or the suitability of our products cannot be guaranteed because users' conditions of use are beyond our control.

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## PROCESSING TECHNIQUE

Cylinder Temperature	180 – 220 °C
Die Temperature	190 – 240 °C
Roller Temperature	50 – 80 °C

\*However, the actual processing conditions depend on mold design, power of machine, equipment and other environments.

## PRODUCT PACKAGING

- 25 kg loose bag
- 25 kg stretch wrap on palletized
- Jumbo bag

For further information, contact IRPC's Sales representative.

## STORAGE

The resin should be stored in a dry location with good housekeeping practices during storage, transferring and handling. Process enclosures and adequate ventilation should be used to avoid excessive dust accumulation. Resin should be protected from direct sunlight, temperatures above 38°C (100°F) and high atmospheric humidity during storage. Higher storage temperatures may reduce the storage time. The container should be kept closed to prevent contamination. For the additional recommended storage conditions, please refer to SDS.

## SAFETY

This product is not classified as hazardous material for more information please refer to safety data sheet.

## RECYCLING

It is an undisputed fact that the product can be recycled or disposed of without any problem.

### DISCLAIMER

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