

POLIMAXX GP150

IRPC Public Company Limited - General Purpose Polystyrene

General Information

Product Description

GP150 is a general purpose polystyrene (GPPS) with high stiffness and high transparency. It is designed for injection molding processing such as appliance & electronic parts and housewares, food container.

Industry:

- Appliance & Electronic Parts
- Housewares

Product Feature:

- High Stiffness
- 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

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Food Contact Acceptable • General Purpose	• High Clarity • High Stiffness	
Uses	• Appliance Components • Electrical/Electronic Applications	• Food Containers • General Purpose	• Household Goods
Agency Ratings	• EC 1907/2006 (REACH) • EU 2011/65/EC	• EU No 10/2011 • FDA 21 CFR 177.1640	
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.05		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage	0.40 to 0.60	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ³ (0.126 in)	455000	psi	ASTM D638
Tensile Strength ⁴ (Yield, 0.126 in)	6900	psi	ASTM D638
Tensile Strength ⁴ (Break, 0.126 in)	6900	psi	ASTM D638
Tensile Elongation ⁴ (Break, 0.126 in)	2.0	%	ASTM D638
Flexural Modulus ^{5, 6} (0.126 in)	469000	psi	ASTM D790
Flexural Strength ⁵ (0.126 in)	12800	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.126 in)	0.40	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale, 73°F, 0.126 in)	80		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed, 0.126 in)	199	°F	ASTM D648



Vicat Softening Temperature ⁷	212 °F	ASTM D1525 ⁸
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.06 in)	HB	UL 94
Processing Information		
Injection	Nominal Value Unit	
Rear Temperature	356 to 464 °F	
Middle Temperature	356 to 464 °F	
Front Temperature	356 to 464 °F	
Mold Temperature	122 to 176 °F	
Injection Rate	Slow-Moderate	

Notes

¹ Typical properties: these are not to be construed as specifications.
² 23°C
³ 0.039 in/min
⁴ 0.20 in/min
⁵ 0.051 in/min
⁶ E-Modulus
⁷ 3.2mm
⁸ Rate A (50°C/h), Loading 1 (10 N)

