

POLIMAXX SP100

IRPC Public Company Limited - *Acrylonitrile Butadiene Styrene*

General Information

Product Description

SP100 is an ABS injection grade with a super high impact strength feature. It is designed for injection molding processing require high impact loading such as appliance & electronic parts, household goods and toys.

Industry:

- Appliance & Electronic Parts
- Housewares
- Toys

Product Feature:

- Super High Impact Strength
- Good Stiffness
- Glossy Finish Parts

Regulation Compliance:

- FDA US 21 CFR 181.32
- Commission Regulation (EU) 10/2011
- RoHS Directive 2011/65/EU
- REACH Regulation (EC) No. 1907/2006
- UL Yellow Card: E132283
- EN 71-3: Safety of Toys

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Food Contact Acceptable • Good Gloss	• Good Stiffness • Ultra High Impact Resistance	
Uses	• Appliance Components • Automotive Applications	• Electrical/Electronic Applications • Handles	
Agency Ratings	• EC 1907/2006 (REACH) • EU 2011/65/EC	• EU No 10/2011 • FDA 21 CFR 181.32	
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) (220°C/10.0 kg)	18	g/10 min	ASTM D1238
Molding Shrinkage	0.40 to 0.60	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ³ (Yield, 0.126 in)	6400	psi	ASTM D638
Tensile Elongation ³ (Break, 0.126 in)	20	%	ASTM D638
Flexural Modulus - 1% Secant ⁴ (0.252 in)	313000	psi	ASTM D790
Flexural Strength ⁴ (Yield, 0.252 in)	8680	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.252 in)	6.4	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 0.252 in)	108		ASTM D785
Thermal	Nominal Value	Unit	Test Method



Deflection Temperature Under Load (264 psi, Unannealed, 0.252 in)	185 °F	ASTM D648
Flammability	Nominal Value	Unit
Flame Rating (0.06 in)	HB	UL 94

Processing Information		
Injection	Nominal Value	Unit
Drying Temperature	176 to 185	°F
Drying Time	2.0 to 4.0	hr
Processing (Melt) Temp	374 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	0.20 in/min	
⁴	0.098 in/min	

