

# SUPREME Specialty PS SP253

Specialty Polystyrene  
Supreme Petrochem Ltd.

Message:

Toughened Polystyrene

Characteristics:

High Stiffness

Moderate Toughness

Good Clarity

Processing:

Molding

Applications:

Ball pens

Small appliances housings

Small impellers

Blended with HIPS for improved gloss

General Information			
Features	Rigidity, high		
	Good toughness		
	Medium transparency		
Uses	Home appliance components		
	Shell		
	Stationery		
Agency Ratings	FDA 21 CFR 177.1640		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.02	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	6.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (23°C, 3.20 mm, Injection Molded)	43.0	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break, 23°C, 3.20 mm, Injection Molded)	5.0	%	ASTM D638
Flexural Modulus (23°C, 3.20 mm, Injection Molded)	2200	MPa	ASTM D790
Flexural Strength (23°C, 3.20 mm, Injection Molded)	60.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.20 mm, Injection Molded)	15	J/m	ASTM D256
Unnotched Izod Impact (23°C, 3.20 mm)	200	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm, Injection Molded)	81.0	°C	ASTM D648
Vicat Softening Temperature	103	°C	ASTM D1525 <sup>3</sup>
Flammability	Nominal Value		Test Method
Flame Rating (1.60 mm)	HB		UL 94
Optical	Nominal Value	Unit	Test Method
Transmittance (1000 µm)	88.0	%	ASTM D1003
Haze (1000 µm, Injection Molded)	2.5	%	ASTM D1003
Additional Information			
The value listed as Haze, ASTM D1003 may not have been tested according to this standard. The value listed as Transmittance, ASTM D1003 may not have been tested according to this standard.			
Injection	Nominal Value	Unit	
Processing (Melt) Temp	220	°C	
Mold Temperature	40.0 - 50.0	°C	
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	标准 B (120°C/h), 压力1 (10N)		

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### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

