

Supreme SH450

High Impact Polystyrene Technical Datasheet



CHARACTERISTIC

- High Gloss
- High Flow
- Good balance of toughness & strength

PROCESSING

- Molding

APPLICATIONS

- Air conditioner & cooler grills,
- Toys, camera parts, household articles, office automation
- Ball pen barrels, novelties, Stationery items
- Washing machine & small appliances

- **Material status:** Commercially active
- Compliance to US FDA 21 CFR 177.1640

UL file No. E185934, RoHS compliant.

Property	Test Method	Test Condition	Nominal Value	Unit
Rheological				
Melt Flow Index	ASTM D1238	200°C/5Kg	8.0	gm/10 min
Thermal				
Vicat Softening Point	ASTM D1525	120°C/hr, 1 Kg	95	°C
Heat Deflection temprature	ASTM D648	1.86 Mpa	77	°C
Mechanical				
Tensile Strength	ASTM D638	50 mm/min	280	kgf/cm ²
Elongation	ASTM D638	50 mm/min	30	%
Flexural Strength	ASTM D790	3.2 mm	490	kgf/cm ²
Flexural Modulus	ASTM D790	3.2 mm	26000	kgf/cm ²
Izod Impact (Notched)	ASTM D256	3.2 mm	70	J/m
General				
Specific Gravity	ASTM D792	-	1.03	-
Gloss	ASTM D523	60°	> 90	%
Processing Conditions				
Processing Temperature	-	-	180-240	°C
Pre-drying Temperature	-	2.0 Hrs	50-80	°C
Mold Temperature	-	-	50-60	°C

Note: - Use of high injection speed, high melt & mold temperature is recommended for improved gloss.

Data presented in this catalogue are typical values of properties and are intended to serve as guide only. SPL reserves the right to review and revise the contents of this catalogue without prior notice.

Supreme Petrochem Ltd

Solitaire Corporate Park, Building No. 11, 5th Floor, 167 Guru Hargovingji Marg, Chakala, Andheri (E), Mumbai - 400093,
Maharashtra, India.

www.supremepetrochem.com

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Test Method & Standard Properties

Data presented in this catalogue are typical values of properties for natural materials and intended to serve as a guide only. All tests are carried out as per ASTM D standard unless otherwise stated. Testing of all mechanical properties is done with an injection molded specimen of 3.2 mm. In actual applications, properties can be affected to a considerable extent by the mould / die design, the processing conditions and the colour.

Environmental

Supreme polystyrene resins can be recycled, incinerated or disposed off in landfill without detriment to the environment. Adequate ventilation should be used during processing. Where recycling of Supreme Polystyrene is not possible, disposal to landfill or incineration in accordance with all applicable government laws and regulations is recommended. Material Safety Data Sheets (MSDS) for Supreme Polystyrene resins are available from Supreme Petrochem Ltd. MSDS are provided to help customers in their own handling, safety and disposal needs and those that may be required for applicable health and safety regulations e.g. OHSAS 18001 and ISO14000. Supreme flame retardant polystyrene grades contains additives which may release hazardous or toxic vapors through lengthy or excessive exposure to high heat. Use suitable personal protective equipments.

Handling Precautions

While the handling of Supreme polystyrene pellets generally does not present unusual problems, a dust can be formed under some circumstances. If persons are exposed to this dust, they should be protected from dust inhalation by use of approved dust respirators. Contact with the skin and eyes should be prevented by use of protective equipment and/or clothing. SPL recommends storing of polystyrene in cool & dry place in a shade away from sunlight and heat. The packing used is not UV stabilised and hence should not be exposed to sunlight.

Exclusion of Liability

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