INEOS STYROLUTION

Styrolution PS 576H

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

DESCRIPTION

Styrolution PS 576H is a high gloss, high impact polystyrene with a good flow and good heat resistance.

FEATURES

- High gloss HIPS
- Good flow and heat resistance
- HIPS with good balance of mechanical properties and surface gloss

APPLICATIONS

- Air conditioner housings
- Refrigerator inner parts
- Kitchen and bathroom articles, Toys
- a variety of uses in the electronics and electrical appliances

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm³/10 min	5.5
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	10
Charpy Notched Impact Strength, 23° C	ISO 179	kJ/m²	13
Charpy Unnotched, 23° C	ISO 179	kJ/m²	120
Charpy Unnotched, -30° C	ISO 179	kJ/m²	70
Tensile Stress at Yield, 23° C	ISO 527	MPa	30
Tensile Strain at Yield, 23° C	ISO 527	%	1.6
Tensile Strain at Break, 23° C	ISO 527	%	30
Tensile Modulus	ISO 527	MPa	2050
Elongation at Break (MD)	ISO 527	%	-
Flexural Strength	ISO 178	MPa	44
Flexural Modulus	ISO 178	MPa	2100
Hardness, Ball Indentation	ISO 2039-1	MPa	83
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50°C/h)	ISO 306	°C	90
Vicat Softening Temperature, VST/A/50 (10N, 50°C/h)	ISO 306	°C	98

Contact us:
Phone +82 2 6322 7775
infopoint.asia@styrolution.com
www.ineos-styrolution.com

INEOS STYROLUTION

Styrolution PS 576H

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	78
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	88
Coefficient of Linear Thermal Expansion	ISO 11359	10^(-6)/°C	100
Electrical Properties			
Dielectric Constant (100 Hz)	IEC 60250	-	2.5
Dissipation Factor (1 MHz)	IEC 60250	10^(-4)	4
Dielectric Strength, Short Time, 1.5 mm	IEC 60243-1	kV/mm	155
Relative Permittivity (100 Hz)	IEC 60250	-	2.5
Relative Permittivity (1 MHz)	IEC 60250	-	2.5
Volume Resistivity	IEC 60093	Ohm*m	>1E16
Surface Resistivity	IEC 60093	Ohm	>1E13
Optical Properties			
Specular Gloss, 60°	ASTM D 523	%	70
Other Properties			
Density	ISO 1183	kg/m³	1050
Water Absorption, Saturated at 23°C	ISO 62	%	<0.1
Moisture Absorption, Equilibrium 23°C/50% RH	ISO 62	%	<0.1
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	180 - 260
Mold Temperature Range	ISO 294	°C	10 - 60
Injection Velocity	ISO 294	mm/s	200

Typical values for uncolored products

Contact us:
Phone +82 2 6322 7775
infopoint.asia@styrolution.com
www.ineos-styrolution.com

SUPPLY FORM

Styrolution PS 576 H is supplied as cylindrical shaped granules and is just supplied as GR21 type with external lubrication. It has to be kept in its original containers in a dry, cool place. Avoid direct exposure to sunlight . Styrolution PS 576 H can also be stored in silos.

PROCESSING

Styrolution PS 576 H can be injection molded under different conditions depending on machinery available and articles molded. Mass temperature can be as high as 260 °C , however to produce articles of optimal mechanical strength mass temperatures between 240 and 260 °C are recommended.

PRODUCT SAFETY

During processing of Styrolution PS resins small quantities of styrene monomer may be released into the atmosphere. At styrene vapor concentrations below 20 ppm no negative effects on health are expected. In our experience, the concentration of styrene does not exceed 1 ppm in well ventilated workplaces - that is where five to eight air changes per hour are made. Further information can be found in our Styrolution PS safety data sheets.

DISCLAIMER

The above information is provided in good faith. INEOS Styrolution is not responsible for any processing or compounding which may occur to product finished articles, packaging materials or their components. Further, INEOS Styrolution MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, REGARDING THE INFORMATION GIVEN OR THE PRODUCTS DESCRIBED, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, REPRESENTATIONS AND CONDITIONS, INCLUDING WITHOUT LIMITATION ALL WARRANTIES AND CONDITIONS OF QUALITY, MERCHANTABILITY AND SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Responsibility for use, storage, handling and disposal of the products described herein is that of the purchaser or end user.

Contact us:
Phone +82 2 6322 7775
infopoint.asia@styrolution.com
www.ineos-styrolution.com