

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	cm ³ /10 min	5.5
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	10
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	13
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m ²	120
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m ²	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
Flexural Strength, 23 °C	ISO 178	MPa	44
Flexural Modulus, 23 °C	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
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	78

Styrolution PS 576H

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
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 62631-2-1	-	2.5
Dissipation Factor (1 MHz)	IEC 62631-2-1	10 ⁻⁴	4
Dielectric Strength, Short Time, 1.5 mm	IEC 60243-1	kV/mm	155
Relative Permittivity (100 Hz)	IEC 62631-2-1	-	2.5
Relative Permittivity (1 MHz)	IEC 62631-2-1	-	2.5
Optical Properties			
Specular Gloss, 60 °	-		70
Other Properties			
Density	ISO 1183	kg/m ³	1050
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