

Styrolution PS 416N

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

DESCRIPTION

Styrolution PS 416N is medium impact polystyrene with very good flow properties. It has a high rigidity whilst displaying a very good surface gloss.

FEATURES

- Very good flow properties
- High rigidity
- High gloss

APPLICATIONS

- Injection molding with long flow lengths

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm ³ /10 min	21
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	5
Tensile Stress at Yield, 23 °C	ISO 527	MPa	30
Tensile Strain at Yield, 23 °C	ISO 527	%	1.2
Tensile Modulus	ISO 527	MPa	2600
Nominal Strain at Break, 23 °C	ISO 527	%	35
Flexural Strength, 23 °C	ISO 178	MPa	46
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	81
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	71
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	80
Thermal Conductivity	DIN 52612-1	W/(m K)	0.16
Electrical Properties			
Volume Resistivity	IEC 62631-3-1	Ohm*m	>10 ¹⁶
Surface Resistivity	IEC 62631-3-1	Ohm	>10 ¹³
Other Properties			

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Density	ISO 1183	kg/m ³	1040
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.5 - 0.7
Melt Temperature Range	ISO 294	°C	180 - 260