

Styrolution PS 416N

High Impact Polystyrene
INEOS Styrolution Group GmbH

Message:

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

General Information			
Features	Good Flow		
	High Rigidity		
	Medium Gloss		
	Medium Impact Resistance		
Forms	Granules		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	21.0	cm ³ /10min	ISO 1133
Molding Shrinkage	0.50 to 0.70	%	ISO 294-4
Water Absorption			ISO 62
Saturation, 23°C	< 0.10	%	
Equilibrium, 23°C, 50% RH	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2600	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	30.0	MPa	ISO 527-2
Tensile Strain (Yield, 23°C)	1.2	%	ISO 527-2
Nominal Tensile Strain at Break (23°C)	35	%	ISO 527-2
Flexural Stress	46.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	5.0	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Annealed)	71.0	°C	ISO 75-2/A
Vicat Softening Temperature	81.0	°C	ASTM D1525 ¹
CLTE - Flow	8.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.16	W/m/K	DIN 52612
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+13	ohms	IEC 60093
Volume Resistivity	> 1.0E+18	ohms · cm	IEC 60093
Injection	Nominal Value	Unit	Test Method
Processing (Melt) Temp	180 to 260	°C	

NOTE

1. Rate B (120°C/h), Loading 2 (50 N)

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