

Technical Data Sheet

Schulatec PPS E FS NAT



Polyphenylene Sulfide

Product Description

PPS unreinforced, impact-modified, with high melt viscosity for extrusion application

Processing Method Extrusion

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate	10	cm ³ /10 min	ISO 1133
Density, (Method A)	1.17	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	35.0	MPa	ISO 527-2
Flexural Modulus	1300	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 50 mm/min)	85	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	1100	MPa	ISO 527-1
Flexural Stress, (3.5%)	35.0	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched, (Type 1, Edgewise, Notch A)	60	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched	No Break		ISO 179-1/1eU
Hardness			
Shore Hardness			
(Shore A, 10 sec)	95		ISO 868
(Shore D, 10 sec)	70		ISO 868
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	130	°C	ISO 306
(A (10N), 50 °C/h)	255	°C	ISO 306
Deflection Temperature Under Load Annealed (1.80 MPa)	95	°C	ISO 75-2/A
Deflection Temperature Under Load Unannealed (0.45 MPa)	110	°C	ISO 75-2/B
DSC Melting Point	280	°C	DSC
Electrical			
Comparative Tracking Index (CTI), (Solution A)	175	V	IEC 60112
Flammable			
Burning Rate			
(2.00 mm)	38	mm/min	ISO 3795
(2.00 mm)	38	mm/min	FMVSS 302

Glow Wire Flammability Index			
(0.75 mm)	700	°C	IEC 60695-2-12
(1.5 mm)	700	°C	IEC 60695-2-12
(3.0 mm)	700	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(0.75 mm)	725	°C	IEC 60695-2-13
(1.5 mm)	725	°C	IEC 60695-2-13
(3.0 mm)	725	°C	IEC 60695-2-13

UL Information

Flame Rating			
(1.5 mm)	HB		UL 94
(3.0 mm)	HB		UL 94
(0.75 mm)	HB		UL 94

Injection Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Drying Temperature, (Dry Air Dryer)	135 to 140	°C
Processing (Melt) Temp	285 to 295	°C