Technical Data Sheet

Schulamid 6 MV 14 FR 4 K1681 BLK 968076

Polyamide 6

Product Description

Medium viscosity flame-retardant Polyamide 6 grade (V-2); without PBDE

Processing Method	Injection Molding
Resin ID	PA6 FR(17+30)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.26	g/cm³	ISO 1183
Viscosity Number	130	cm³/g	ISO 307
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	60.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	4.0	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	3200	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	4.7	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	4.3	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	55	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	38	kJ/m²	ISO 179
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	195	°C	ISO 306
(A (10N), 50 °C/h)	211	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	178	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	70.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	10000000000000	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	300	V	IEC 60112
Surface Resistivity	1E+15	ohm	IEC 60093
Flammable			

Glow Wire Flammability Index			
(0.75 mm)	930	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
(0.38 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(0.75 mm)	930	°C	IEC 60695-2-13
(1.5 mm)	825	°C	IEC 60695-2-13
(3.0 mm)	825	°C	IEC 60695-2-13
(0.38 mm)	930	°C	IEC 60695-2-13
Oxygen Index	22	%	ISO 4589-2
UL Information			
Flame Rating			
(1.6 mm)	V-2		UL 94
(3.2 mm)	V-2		UL 94
(0.8 mm)	V-2		UL 94
(0.40 mm)	V-2		UL 94
Flammability Classification			
(0.40 mm)	V-2		IEC 60695-11-10, -20
(0.8 mm)	V-2		IEC 60695-11-10, -20
(1.6 mm)	V-2		IEC 60695-11-10, -20
(3.2 mm)	V-2		IEC 60695-11-10, -20
UL File Number	E86615		

Injection Parameters	Nominal Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.1	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	240 to 260	°C
Injection Rate	Slow-Moderate	
Back Pressure	20 to 80	bar
Mold Temperature	60 to 90	°C