Technical Data Sheet

Schulamid 612 FS4104 K2348 BLK968001

Polyamide 612

Product Description

High impact modified Polyamide 612 with electrical neutral heat stabilization system for extrusion applications. Heat stabilization system with very low halogen content (<30 ppm).

Processing Method	Extrusion
Attribute	Fuel Resistant; Good Chemical Resistance; Good Corrosion Resistance; Good Dimensional Stability; Good Heat Aging Resistance; High Impact Resistance; High Viscosity; Low Temperature Toughness; Low to No Water Absorption; Oil Resistant

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (275 °C/21.6 kg)	15	cm³/10 min	ISO 1133
Density, (Method A)	1.01	g/cm³	ISO 1183
Viscosity Number	120	cm³/g	ISO 307
Mechanical			
Nominal Tensile Strain at Break			
(50 mm/min, Type 1A) - Conditioned	>250	%	ISO 527-2
(50 mm/min, Type 1A)	>200	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 50 mm/min)	35.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	30.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	1200	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	320	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	110	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	110	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	No Break		ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Hardness			
Ball Indentation Hardness, (H 358/30)	68.0	MPa	ISO 2039-1
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	100	°C	ISO 306
(A (10N), 50 °C/h)	200	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	70.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	55.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
- Conditioned	>1.0E+10	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI), (Solution A)	550	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	30	mm/min	ISO 3795
(2.00 mm)	30	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	675	°C	IEC 60695-2-12
(3.0 mm)	675	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	650	°C	IEC 60695-2-13
(3.0 mm)	650	°C	IEC 60695-2-13
UL Information			
Flammability Classification			
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20

Extrusion Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Melt Temperature	230 to 270	°C
Suggested Max Moisture	0.1	%
Drying Temperature	80	°C