Technical Data Sheet

Polyflam RIPP 4000 OSD K3014 BUE49815

Polypropylene Copolymer

Product Description

Flame-retardant PP-Copolymer, halogenfree, optimized smoke density

Processing Method	Extrusion; Injection Molding
Attribute	Copolymer; Halogen Free; Low Smoke Emission
Additive	Flame Retardant
Resin ID	PP FR(51)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	4.0	cm³/10 min	ISO 1133
Density, (Method A)	1.07	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	20.0	MPa	ISO 527-2
Nominal Tensile Strain at Break, (50 mm/min, Type 1A)	50	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	2100	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 50 mm/min)	3.3	%	ISO 527-2
Tensile Stress at Break, (Type 1A, 50 mm/min)	15.0	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	2100	MPa	ISO 527-1
Flexural Stress			
(2.0 mm/min, 3.5%)	35.0	MPa	ISO 178
(2.0 mm/min, 4.0%)	35.0	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C)	3.0	kJ/m²	ISO 179-1/1eA
(-30 °C)	1.0	kJ/m²	ISO 179-1/1eA
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	20	kJ/m²	ISO 179
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	74.0	°C	ISO 306
(A (10N), 50 °C/h)	155	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	98.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0	°C	ISO 75-2/A

Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Dielectric Strength, (in Oil, 1.00 mm, 23 °C, 2000 V/sec)	43	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	600	V	UL 746A
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
Glow Wire Flammability Index			
(0.75 mm)	960	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°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
Oxygen Index	33	%	ISO 4589-2
UL Information			
Flammability Classification			
(0.75 mm)	V-0		IEC 60695-11-10, -20
(1.5 mm)	V-0		IEC 60695-11-10, -20
(1.6 mm)	5VB		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	70 to 80	°C
Nozzle Temperature	220	°C
Screw Speed	<300	mm/sec
Processing (Melt) Temp	180 to 220	°C
Front Temperature	210	°C
Holding Pressure	40.0 to 90.0	MPa
Middle Temperature	200	°C
Rear Temperature	180	°C
Injection Rate	Slow-Moderate	
Back Pressure	5.00 to 10.0	MPa
Mold Temperature	40 to 80	°C
Injection Pressure	80.0 to 120	MPa
Cushion	<5.00	mm