Maxxam™ FR PP 301 BLK 1284-11 S

Polypropylene

Key Characteristics

Product Description
Maxxam™ FR flame-retardant polyolefin compounds and masterbatches meet stringent flammability performance requirements defined by industry agencies, including Underwriters Laboratories UL 94 V-2, V-0, and 5VA performance ratings. In addition, many compounds in the Maxxam FR portfolio offer elevated Relative Thermal Index (RTI) ratings.

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Flame Retardant	• Homopolymer	
Forms	• Pellets		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.980	0.980	ASTM D792
Melt Mass-Flow Rate (MFR) [2] (230°C/2.16 kg)	4.0 to 12 g/10 min	4.0 to 12 g/10 min	ASTM D1238
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [3] (Yield)	4100 psi	28.3 MPa	ASTM D638
Tensile Elongation [3] (Break)	230 %	230 %	ASTM D638
Flexural Modulus	160000 psi	1100 MPa	ASTM D790
Poisson's Ratio [4]	0.43	0.43	ASTM D638
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	0.50 ft·lb/in	27 J/m	
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	194 °F	90.0 °C	
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Volume Resistivity	1.0E+16 ohms·cm	1.0E+16 ohms·cm	ASTM D257
Dielectric Strength	1000 V/mil	41 kV/mm	ASTM D149
Comparative Tracking Index (CTI)	PLC 0	PLC 0	UL 746
High Amp Arc Ignition (HAI)			UL 746
0.030 in (0.75 mm)	PLC 1	PLC 1	
0.06 in (1.5 mm)	PLC 1	PLC 1	
0.12 in (3.0 mm)	PLC 1	PLC 1	
High Voltage Arc Resistance to Ignition (HVAR)			UL 746
0.0295 in (0.750 mm)	PLC 1	PLC 1	
0.0591 in (1.50 mm)	PLC 1	PLC 1	
0.118 in (3.00 mm)	PLC 1	PLC 1	
High Voltage Arc Tracking Rate (HVTR)	PLC 0	PLC 0	UL 746

Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Hot-wire Ignition (HWI)			UL 746
0.030 in (0.75 mm)	PLC 4	PLC 4	
0.06 in (1.5 mm)	PLC 3	PLC 3	
0.12 in (3.0 mm)	PLC 2	PLC 2	
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating			UL 94
0.030 in (0.75 mm), (NC and Black)	V-0	V-0	
0.06 in (1.5 mm), (NC and Black)	V-0	V-0	
0.12 in (3.0 mm), (NC and Black)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in (0.75 mm)	1760 °F	960 °C	
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 in (0.75 mm)	1760 °F	960 °C	
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1430 °F	775 °C	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	100 °F	37.8 °C
Drying Time	2.0 hr	2.0 hr
Rear Temperature	360 to 390 °F	182 to 199 °C
Middle Temperature	370 to 400 °F	188 to 204 °C
Front Temperature	390 to 410 °F	199 to 210 °C
Nozzle Temperature	400 to 425 °F	204 to 218 °C
Mold Temperature	60.0 to 120 °F	15.6 to 48.9 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] Procedure A

[3] Type I, 2.0 in/min (51 mm/min)

[4] Measured on Natural

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