



Maxxam™ FR PP FR 7B01

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	• Medium Flow	
Forms	• Pellets		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.940	0.940	ASTM D792
Specific Volume	29.8 in ³ /lb	1.08 cm ³ /g	ASTM D792
Melt Mass-Flow Rate (MFR) ² (230°C/2.16 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow (Injection Molded)	0.010 to 0.020 in/in	1.0 to 2.0 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ³ (Yield)	4500 psi	31.0 MPa	ASTM D638
Tensile Elongation ³ (Break)	120 %	120 %	ASTM D638
Flexural Modulus	200000 psi	1380 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	0.80 ft·lb/in	43 J/m	ASTM D256A
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	208 °F	98.0 °C	ASTM D648
RTI Elec 0.030 in (0.75 mm) 0.06 in (1.5 mm) 0.12 in (3.0 mm)	221 °F 230 °F 230 °F	105 °C 110 °C 110 °C	UL 746
RTI Imp 0.030 in (0.75 mm) 0.06 in (1.5 mm) 0.12 in (3.0 mm)	221 °F 230 °F 230 °F	105 °C 110 °C 110 °C	UL 746
RTI Str 0.030 in (0.75 mm) 0.06 in (1.5 mm) 0.12 in (3.0 mm)	221 °F 230 °F 230 °F	105 °C 110 °C 110 °C	UL 746
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	1300 V/mil	52 kV/mm	ASTM D149

Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Comparative Tracking Index (CTI)	PLC 0	PLC 0	UL 746
High Amp Arc Ignition (HAI)			UL 746
0.030 in (0.75 mm)	PLC 0	PLC 0	
0.06 in (1.5 mm)	PLC 0	PLC 0	
0.12 in (3.0 mm)	PLC 0	PLC 0	
High Voltage Arc Tracking Rate (HVTR)	PLC 0	PLC 0	UL 746
Hot-wire Ignition (HWI)			UL 746
0.030 in (0.75 mm)	PLC 3	PLC 3	
0.06 in (1.5 mm)	PLC 2	PLC 2	
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), ALL	V-2	V-2	
0.06 in (1.5 mm)	V-2	V-2	
0.12 in (3.0 mm)	V-2	V-2	

Additional Information

Unless otherwise specified, all data listed is for natural and black colored materials. Pigments can affect properties.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	100 °F	38 °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 to 120 °F	16 to 49 °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)