



# Maxxam™ FR PP 301 NATL 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 <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.980	0.980	ASTM D792
Melt Mass-Flow Rate (MFR) <sup>2</sup> (230°C/2.16 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>3</sup> (Yield)	4100 psi	28.3 MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	230 %	230 %	ASTM D638
Flexural Modulus	160000 psi	1100 MPa	ASTM D790
Poisson's Ratio	0.43	0.43	ASTM D638
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	0.50 ft·lb/in	27 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)	194 °F	90.0 °C	ASTM D648
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
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
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	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

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Procedure A

<sup>3</sup> Type I, 2.0 in/min (51 mm/min)

*PolyOne*<sup>™</sup>

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