



# Maxxam™ PP5120 A1

## Polypropylene Homopolymer

### Key Characteristics

#### Product Description

PolyOne's Maxxam™ family of polypropylene- and polyethylene-based products covers a wide range of applications, markets and performance requirements. Standard grades are compounded with calcium carbonate, glass and talc to provide a desired balance of properties including stiffness, durability, impact resistance and heat resistance. Custom grades are available with features such as UV stabilizers, heat stabilizers, custom color, high impact, etc.

#### General

Material Status	• Commercial: Active
Regional Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Talc\Mineral, 21% Filler by Weight
Features	• General Purpose • Homopolymer
Uses	• Automotive Applications • Construction Applications • Consumer Applications • General Purpose • Industrial Applications
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity			
--	1.05	1.05	ASTM D792
--	1.05	1.05	ISO 1183
Melt Mass-Flow Rate (MFR)			
230°C/2.16 kg	10 g/10 min	10 g/10 min	ASTM D1238
230°C/2.16 kg	9.0 g/10 min	9.0 g/10 min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow	1.0 to 1.2 %	1.0 to 1.2 %	
Flow	0.90 to 1.1 %	0.90 to 1.1 %	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength			
Yield <sup>2</sup>	4790 psi	33.0 MPa	ASTM D638
Yield <sup>3</sup>	4640 psi	32.0 MPa	ISO 527
Tensile Elongation <sup>2</sup> (Yield)	4.0 %	4.0 %	ASTM D638
Tensile Strain (Yield)	4.0 %	4.0 %	ISO 527-2/50
Flexural Modulus			
--	363000 psi	2500 MPa	ASTM D790
--	365000 psi	2520 MPa	ISO 178
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	0.60 ft·lb/in	32 J/m	
Notched Izod Impact Strength (73°F (23°C))	1.4 ft·lb/in <sup>2</sup>	3.0 kJ/m <sup>2</sup>	ISO 180

Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed	153 °F	67.0 °C	ISO 75-2/A
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Burning Rate	0.75 in/min	19 mm/min	ISO 3795
Glow Wire Flammability Index 0.08 in (2.0 mm)	1110 °F	600 °C	IEC 60695-2-12

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	1.0 hr	1.0 hr
Processing (Melt) Temp	365 to 428 °F	185 to 220 °C
Mold Temperature	77 to 131 °F	25 to 55 °C

### Notes

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

<sup>2</sup> Type I, 2.0 in/min (51 mm/min)

<sup>3</sup> 2.0 in/min (50 mm/min)



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