



# Maxxam™ PPR-40G Nat

## 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	• Filler, 40% Filler by Weight • Glass Fiber		
Features	• Chemically Coupled • Homopolymer • General Purpose • Low Flow		
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
Specific Gravity	1.22	1.22	ASTM D792
Specific Volume	22.7 in <sup>3</sup> /lb	0.820 cm <sup>3</sup> /g	ASTM D792
Melt Mass-Flow Rate (MFR) <sup>2</sup> (230°C/2.16 kg)	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.0E-3 to 3.0E-3 in/in	0.10 to 0.30 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>3</sup> (Yield)	12900 psi	88.9 MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	9.0 %	9.0 %	ASTM D638
Flexural Modulus	1.03E+6 psi	7100 MPa	ASTM D790
Flexural Strength	19200 psi	132 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	1.5 ft·lb/in	80 J/m	ASTM D256A
Unnotched Izod Impact <sup>4</sup> 73°F (23°C), 0.125 in (3.18 mm)	6.5 ft·lb/in	350 J/m	ASTM D256
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale)	105	105	ASTM D785
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)	324 °F	162 °C	ASTM D648
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.06 in (1.5 mm), ALL)	HB	HB	UL 94

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## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Mold Temperature	60.8 to 122 °F	16.0 to 50.0 °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)

<sup>4</sup> Injection Molded

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