



# Maxxam™ PPC-40T Nat

## Polypropylene Copolymer

### 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 • Talc		
Additive	• Impact Modifier		
Features	• Copolymer	• General Purpose	• Impact Modified
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	1.23	1.23	ASTM D792
Specific Volume	22.5 in <sup>3</sup> /lb	0.813 cm <sup>3</sup> /g	ASTM D792
Melt Mass-Flow Rate (MFR) <sup>2</sup> (230°C/2.16 kg)	11 g/10 min	11 g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 8.0E-3 in/in	0.40 to 0.80 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>3</sup> (Yield)	3400 psi	23.4 MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	25 %	25 %	ASTM D638
Flexural Modulus	430000 psi	2960 MPa	ASTM D790
Flexural Strength	6000 psi	41.4 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	0.50 ft·lb/in	27 J/m	ASTM D256A
Unnotched Izod Impact <sup>4</sup> 73°F (23°C), 0.125 in (3.18 mm)	4.1 ft·lb/in	220 J/m	ASTM D256
Gardner Impact -9°F (-23°C), 0.125 in (3.18 mm)	43.0 in·lb	4.86 J	ASTM D3029
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale)	70	70	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)	264 °F	129 °C	ASTM D648

## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Mold Temperature	61 to 122 °F	16 to 50 °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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