



## Maxxam™ PPH-20G 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<br>• Asia Pacific                 | • Europe<br>• Latin America                  | • North America           |
| Filler / Reinforcement | • Filler, 20% Filler by Weight                           | • Glass Fiber                                |                           |
| Features               | • General Purpose                                        | • Homopolymer                                |                           |
| Uses                   | • Automotive Applications<br>• Construction Applications | • Consumer Applications<br>• 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                                       | 1.04                     | 1.04                     | ASTM D792   |
| Specific Volume                                        | 26.6 in <sup>3</sup> /lb | 0.961 cm <sup>3</sup> /g | ASTM D792   |
| Melt Mass-Flow Rate (MFR) <sup>2</sup> (230°C/2.16 kg) | 5.0 g/10 min             | 5.0 g/10 min             | ASTM D1238  |
| Molding Shrinkage - Flow                               | 1.0E-3 to 4.0E-3 in/in   | 0.10 to 0.40 %           | ASTM D955   |
| Mechanical                                             | Typical Value (English)  | Typical Value (SI)       | Test Method |
| Tensile Strength <sup>3</sup> (Yield)                  | 8350 psi                 | 57.6 MPa                 | ASTM D638   |
| Tensile Elongation <sup>3</sup> (Break)                | 9.0 %                    | 9.0 %                    | ASTM D638   |
| Flexural Modulus                                       | 520000 psi               | 3590 MPa                 | ASTM D790   |
| Flexural Strength                                      | 11900 psi                | 81.7 MPa                 | ASTM D790   |
| 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      | 1.0 ft-lb/in             | 53 J/m                   |             |
| Hardness                                               | Typical Value (English)  | Typical Value (SI)       | Test Method |
| Rockwell Hardness (R-Scale)                            | 99                       | 99                       | ASTM D785   |
| Thermal                                                | Typical Value (English)  | Typical Value (SI)       | Test Method |
| Deflection Temperature Under Load                      |                          |                          | ASTM D648   |
| 66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)      | 314 °F                   | 157 °C                   |             |
| Deflection Temperature Under Load                      |                          |                          | ASTM D648   |
| 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)      | 283 °F                   | 139 °C                   |             |
| 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)

## CONTACT INFORMATION

## Americas

United States - Avon Lake  
+1 440 930 1000

United States - McHenry  
+1 815 385 8500

## Asia

China - Guangzhou  
+86 20 8732 7260

China - Shenzhen  
+86 755 2969 2888

China - Suzhou  
+86 512 6823 24 38

China - Suzhou  
+86 512 6265 2600

Hong Kong -  
+852 2690 5332

Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849

## Europe

Germany - Gaggenau  
+49 7225 6802 0

Spain - Barbastro (Huesca)  
+34 974 310 314



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[www.polyone.com](http://www.polyone.com)

## PolyOne Americas

33587 Walker Road  
Avon Lake, Ohio 44012  
United States  
+1 440 930 1000  
+1 866 POLYONE

## PolyOne Asia

No. 88 Guoshoujing Road  
Z.J Hi-tech Park, Pudong  
Shanghai, 201203, China  
+86 21 5080 1188

## PolyOne Europe

6 Giällewee  
+352 269 050 35

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