



# WPP PP PPH3MG3.5-Black

Washington Penn Plastic Co. Inc. - Polypropylene Homopolymer

Wednesday, October 9, 2019

## General Information

### Product Description

Properties shown below for this filled blend are typical for a 35% mica and glass fiber reinforced polypropylene homopolymer. This product satisfies many application needs. Special compounds are available. UV stabilization for improved weatherability available.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass\Mica, 35% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Heat Stabilized	• High Heat Resistance	• Homopolymer
Uses	• Automotive Applications		
Appearance	• Black	• Colors Available	
Forms	• Pellets		

## ASTM & ISO Properties<sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.17	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	11	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield)	56.0	MPa	ASTM D638
Flexural Modulus - Secant <sup>3</sup>	4150	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	43	J/m	ASTM D256
Unnotched Izod Impact (23°C)	400	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	153	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed	140	°C	ASTM D648

### Additional Information

Tested at 23 ± 2°C (73.4 ± 3.6°F) and 50 ± 5% relative humidity unless otherwise noted.

Filler Content, In-house #1003-02: 35%

## Processing Information

Injection	Nominal Value	Unit
Drying Temperature	71 to 88	°C
Drying Time	1.0 to 3.0	hr
Rear Temperature	221 to 229	°C
Middle Temperature	229 to 235	°C
Front Temperature	229 to 241	°C
Nozzle Temperature	221 to 243	°C
Mold Temperature	16 to 49	°C

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Injection	Nominal Value	Unit
Injection Pressure	4.14 to 10.3	MPa
Holding Pressure	1.03 to 4.14	MPa
Back Pressure	0.345 to 1.03	MPa
Clamp Tonnage	3.4 to 5.5	kN/cm <sup>2</sup>
Cushion	3.18 to 6.35	mm

### Injection Notes

Injection Speed: 1.5 to 2.75 in/s  
Zone 4 Temperature: 450 to 475°F  
Hot Runner Temperature: 430 to 470°F  
Hydraulic Oil Temperature: 110 to 125°F  
Shot Capacity vs. Barrel Capacity: 2.5 to 4  
Screw Decompression: 0.1 to 0.25 in

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 5.0 mm/min

<sup>3</sup> 1.3 mm/min