

WPP PP PPH4CF-4

Polypropylene Homopolymer

Washington Penn Plastic Co. Inc.

Product Description

Available in colors with FDA recognition for food packaging applications. Compounds are offered with high gloss. Available in grades recognized by UL for RTI classification of 120°C at .120" minimum thickness. Good balance of ductility and stiffness. It is also offered with extra heat stabilizers or with UV stabilizers for improved weather resistance. Some versions incorporate antistatic additives and all can be color matched to meet styling requirements.

Note: Custom colors available upon request.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Calcium Carbonate Filler, 40% Filler by Weight
Features	• General Purpose • Homopolymer
Uses	• Automotive Applications • Furniture • Industrial Applications
Forms	• Pellets

Physical	Nominal Value Unit	Test Method
Specific Gravity	1.23 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	10 g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.4 to 1.8 %	ASTM D955

Mechanical	Nominal Value Unit	Test Method
Tensile Strength ² (Yield)	26.5 MPa	ASTM D638
Tensile Elongation ² (Break)	46 %	ASTM D638
Flexural Modulus - Tangent	2530 MPa	ASTM D790
Flexural Strength	61.9 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Notched Izod Impact		ASTM D256
-30°C, 3.18 mm	32 J/m	
23°C, 3.18 mm	44 J/m	
Unnotched Izod Impact (23°C, 3.18 mm)	1400 J/m	ASTM D256
Gardner Impact		ASTM D3029
-30°C	12.9 J	
23°C	18.1 J	

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	100	ASTM D785
Durometer Hardness (Shore D)	79	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed	115 °C	
1.8 MPa, Unannealed	71.7 °C	

Additional Information

Flexural Modulus, ASTM D790, 2% Secant: 256000 psi

Injection	Nominal Value Unit
Drying Temperature	71.1 to 87.8 °C
Drying Time	1.0 hr
Rear Temperature	218 to 224 °C
Middle Temperature	218 to 224 °C
Front Temperature	221 to 227 °C
Nozzle Temperature	227 to 238 °C
Mold Temperature	15.6 to 48.9 °C
Injection Pressure	4.14 to 7.58 MPa
Holding Pressure	1.72 to 4.83 MPa
Back Pressure	0.517 to 1.03 MPa
Clamp Tonnage	3.4 to 5.5 kN/cm ²
Cushion	3.18 to 6.35 mm

Injection Notes

Injection Speed: 1.5 to 2.5 in/s
Zone 4 Temperature: 440 to 450°F
Hot Runner Temperature: 440 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

¹ Typical properties: these are not to be construed as specifications.

² 51 mm/min