



WPP PP PPH4TF-2

Washington Penn Plastic Co. Inc. - Polypropylene Homopolymer

Wednesday, October 9, 2019

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Talc, 20% Filler by Weight		
Additive	• Antistatic	• Heat Stabilizer	• UV Stabilizer
Features	• Antistatic • Heat Stabilized	• Homopolymer • Medium Flow	• UV Resistant
Uses	• Automotive Applications • Furniture	• General Purpose • Industrial Applications	
Forms	• Pellets		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.07	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.3 to 1.7	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	33.8	MPa	ASTM D638
Tensile Elongation ² (Break)	17	%	ASTM D638
Flexural Modulus - Tangent	3190	MPa	ASTM D790
Flexural Strength	48.3	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.18 mm	27	J/m	
23°C, 3.18 mm	31	J/m	
Unnotched Izod Impact (23°C, 3.18 mm)	340	J/m	ASTM D256
Gardner Impact			ASTM D3029
-30°C	2.71	J	
23°C	0.678	J	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	93		ASTM D785
Durometer Hardness (Shore D)	75		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	131	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	74.4	°C	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	71 to 88	°C
Drying Time	1.0	hr

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Injection	Nominal Value	Unit
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	16 to 49	°C
Injection Pressure	4.14 to 7.58	MPa
Holding Pressure	1.72 to 4.83	MPa
Back Pressure	0.689 to 1.38	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