



WPP PP PPC2CF-2

Washington Penn Plastic Co. Inc. - Polypropylene Copolymer

Wednesday, October 9, 2019

General Information

Product Description

Versions are available with various levels of copolymer to achieve desired levels of impact and modulus balance. Colors available meeting FDA requirements for food contact applications. Compounds are offered with higher gloss.

Note: Custom colors available upon request.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Calcium Carbonate, 20% Filler by Weight		
Features	• Copolymer • Ductile	• Good Impact Resistance • Medium Flow	
Uses	• Appliances	• Household Goods	• Toys
Forms	• Pellets		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.04	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	1.4 to 2.2	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	18.6	MPa	ASTM D638
Tensile Elongation ² (Break)	440	%	ASTM D638
Flexural Modulus - Tangent	986	MPa	ASTM D790
Flexural Strength	30.3	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.18 mm	40	J/m	
23°C, 3.18 mm	190	J/m	
Unnotched Izod Impact (23°C, 3.18 mm)	1400	J/m	ASTM D256
Gardner Impact			ASTM D3029
-30°C	24.4	J	
23°C	18.1	J	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	83		ASTM D785
Durometer Hardness (Shore D)	67		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	83.3	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed	43.9	°C	ASTM D648

Additional Information

Flexural Modulus, ASTM D790, 2% Secant: 142000 psi

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	71 to 88	°C
Drying Time	1.0	hr
Rear Temperature	224 to 229	°C
Middle Temperature	224 to 229	°C
Front Temperature	227 to 232	°C
Nozzle Temperature	232 to 243	°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	0.517 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: 450 to 460°F
Hot Runner Temperature: 450 to 480°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