RESILIENCE® PP5120C B3-R

GEON Performance Solutions - Polypropylene Homopolymer

Thursday, June 20, 2024

General Information

Product Description

The GEON® 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		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Talc, 20% Filler by Weight		
Features	• General Purpose		
Uses	• Automotive Applications • Construction Applications	• Consumer Applications • General Purpose	• Industrial Applications
Automotive Specifications	• FORD WSH-M4D293-B2		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.04	g/cm³	1.04	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)	22	g/10 min	22	g/10 min	ISO 1133
Molding Shrinkage	1.0 to 1.4	%	1.0 to 1.4	%	Internal Method
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Stress (Yield)	4640	psi	32.0	MPa	ISO 527-2
Tensile Strain (Break)	20	%	20	%	ISO 527-2
Flexural Modulus	406000	psi	2800	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact Strength (73°F (23°C))	1.7	ft·lb/in²	3.5	kJ/m²	ISO 180
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					
66 psi (0.45 MPa), Unannealed	248	°F	120	°C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	158	°F	70.0	°C	ISO 75-2/A
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Burning Rate (0.126 in (3.20 mm))	< 3.9	in/min	< 100	mm/min	ISO 3795

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Processing Information				
Injection	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**
Drying Temperature	176	°F	80	°C
Drying Time	1.0	hr	1.0	hr
Rear Temperature	365 to 392	°F	185 to 200	°C
Middle Temperature	392 to 419	°F	200 to 215	°C
Front Temperature	401 to 428	°F	205 to 220	°C
Nozzle Temperature	401 to 428	°F	205 to 220	°C
Mold Temperature	104	°F	40	°C
Injection Rate	Moderate		Moderate	
Back Pressure	1160	psi	8.00	MPa

Notes

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