WDF® PA12 120GF50

Polyamide 12

Worldful Polymer (Shanghai) Co., Ltd.

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Technical Data

Product Description			
The 120GF50 is a 50% glass fiber reinforced PA12 material. It has excellent mechanical properties, high toughness, high flatness, and excellent chemical resistance.			
General			
Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (Chinese) • Technical Datasheet (English)		
Availability	• Asia Pacific		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Chemical Resistant	• High Toughness	
Uses	• Automotive Applications	• Electrical/Electronic Applications	• Industrial Applications
Appearance	• Natural Color		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.47	g/cm³	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.10 to 0.30	%	
Across Flow	0.20 to 0.50	%	
Water Absorption (Equilibrium)	0.40	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3]	150	MPa	ASTM D638
Tensile Elongation [3] (Break)	> 3.0	%	ASTM D638
Flexural Modulus [4]	10000	MPa	ASTM D790
Flexural Strength [4]	190	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength	No Break		ASTM D256
Notched Izod Impact	180	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	165	°C	
Melting Temperature	178	°C	ASTM D2133
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	34	kV/mm	IEC 60243-1
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.6 mm	HB		
3.2 mm	HB		

Injection	Nominal Value	Unit
Drying Temperature	80 to 100	°C
Drying Time	4.0 to 6.0	hr
Rear Temperature	210 to 230	°C
Middle Temperature	230 to 250	°C
Front Temperature	220 to 240	°C
Processing (Melt) Temp	210 to 230	°C
Mold Temperature	60 to 80	°C
Injection Rate	Slow-Moderate	

Form No. TDS-403571-en

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Document Created: Thursday, March 21, 2019
Added to Prospector: April 2018
Last Updated: 4/20/2018

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Injection	Nominal Value	Unit
Back Pressure	2.00 to 4.00	MPa

Injection Notes
Processing Temp. Limit <260 °C

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

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

[3] 50 mm/min

[4] 20 mm/min

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Where to Buy

Supplier

Worldful Polymer (Shanghai) Co., Ltd.
Shanghai, China
Telephone: +86-21-51688081
Web: http://www.wdfsh.cn

Distributor

Worldful Polymer (Shanghai) Co., Ltd.
Telephone: +86-21-51688081; Mr. Ma Cell: +86-13621999631
Web: http://www.wdfsh.cn
Availability: China

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