WDF® PA12 120-HL NC

Polyamide 12

Worldful Polymer (Shanghai) Co., Ltd.

PROSPECTOR®
www.ulprospector.com

Technical Data

Product Description			
120-HL is a semi-transparent flexible material. The material has excellent mechanical properties, excellent low temperature toughness, UV resistance, yellowing resistance, hydrolysis resistance.			
General			
Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (Chinese) • Technical Datasheet (English)		
Availability	• Asia Pacific		
Features	• Good Flexibility • Good Thermal Stability	• Hydrolysis Resistant • Low Temperature Toughness	• UV Resistant
Uses	• Appliances	• Industrial Applications	
Appearance	• Clear/Transparent	• Natural Color	
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.01	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (240°C/2.16 kg)	6.0	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	0.80 to 1.2	%	
Across Flow	0.90 to 1.4	%	
Water Absorption (Equilibrium)	0.70	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3]	40.0	MPa	ASTM D638
Tensile Elongation [3] (Break)	> 50	%	ASTM D638
Flexural Modulus [4]	1100	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength	No Break		ASTM D256
Notched Izod Impact	70	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	95.0	°C	
1.8 MPa, Unannealed	45.0	°C	
Vicat Softening Temperature [5]	125	°C	ASTM D1525 [6]
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 90	°C
Drying Time	3.0 to 4.0	hr
Rear Temperature	170 to 190	°C
Middle Temperature	190 to 220	°C
Front Temperature	180 to 200	°C
Processing (Melt) Temp	180 to 210	°C
Mold Temperature	60 to 80	°C

Form No. TDS-403574-en

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.
UL Prospector | 800-788-4668 or 307-742-9227 | www.ulprospector.com.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

Document Created: Thursday, April 18, 2019
Added to Prospector: April 2018
Last Updated: 4/20/2018

Injection	Nominal Value	Unit
Injection Rate	Slow-Moderate	
Back Pressure	1.00 to 3.00	MPa

Injection Notes

Processing Temp. Limit <240 °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

[5] 0.125 in

[6] Rate A (50°C/h)

Form No. TDS-403574-en

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.
UL Prospector | 800-788-4668 or 307-742-9227 | www.ulprospector.com.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

Document Created: Thursday, April 18, 2019
Added to Prospector: April 2018
Last Updated: 4/20/2018

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

Form No. TDS-403574-en

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.
UL Prospector | 800-788-4668 or 307-742-9227 | www.ulprospector.com.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

Document Created: Thursday, April 18, 2019
Added to Prospector: April 2018
Last Updated: 4/20/2018