

Nylacast Aquanyl Nylon 612 Copolymer

Category : Polymer , Thermoplastic , Nylon , Nylon 612

Material Notes:

Aquanyl is a copolymer of Nylon 6 and Nylon 12 produced via the anionic polymerization process using the monomer's Caprolactam and Laurinlactam. It has reduced water absorption, improved stability and impact strength. Information provided by Nylacast Ltd.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Nylacast-Aquanyl-Nylon-612-Copolymer.php

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in ³	method A; ISO 1183:1987
Water Absorption	0.20 % @Time 86400 sec	0.20 % @Time 24.0 hour	Immersion; ISO 62:1999
Water Absorption at Saturation	5.0 %	5.0 %	Immersion; ISO 62:1999

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	78 - 82	78 - 82	ISO 868:2003
Tensile Strength, Yield	75.0 - 85.0 MPa	10900 - 12300 psi	Type 1B, 50mm/min; ISO 527-1/2:1993
Elongation at Break	>= 20 %	>= 20 %	Type 1B, 50mm/min; ISO 527-1/2:1993
Tensile Modulus	3.40 GPa	493 ksi	Type 1B, 50mm/min; ISO 527-1/2:1993
Flexural Strength	50.0 - 100 MPa	7250 - 14500 psi	1.5mm/min; ISO 178:2001
Flexural Modulus	2.70 GPa	392 ksi	1.5mm/min; ISO 178:2001
Compressive Strength	130 MPa	18900 psi	Type B, 5mm/min; ISO 604:2002
Compressive Modulus	2.60 GPa	377 ksi	Type B, 5mm/min; ISO 604:2002
Izod Impact, Notched (ISO)	6.50 kJ/m ²	3.09 ft-lb/in ²	Type A; ISO 180:2000

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ @Temperature 23.0 - 55.0 $^{\circ}\text{C}$	44.4 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ @Temperature 73.4 - 131 $^{\circ}\text{F}$	ISO 11359-2:1999
Melting Point	221 $^{\circ}\text{C}$	430 $^{\circ}\text{F}$	
Maximum Service Temperature, Air	160 $^{\circ}\text{C}$	320 $^{\circ}\text{F}$	Intermittent

Thermal Properties	100 °C Metric	212 °F English	Comments
	@Time 1.80e+7 sec	@Time 5000 hour	
Minimum Service Temperature, Air	-100 °C	-148 °F	Intermittent
	-40.0 °C	-40.0 °F	Continuous

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093:1980-01
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093:1980-01
Dielectric Constant	3.7	3.7	IEC 60250:1969-01
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	4.0	4.0	IEC 60250:1969-01
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	25.0 kV/mm	635 kV/in	IEC 60243-1:1998-01
Comparative Tracking Index	600 V	600 V	IEC 60112:2003-01

Descriptive Properties	Value	Comments
Color	Natural/Yellow	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China