

General Information

Product Description

Ultramid 1310-11 is a controlled crystallization, fast cycling nylon 6/6 which provides extremely fast cycle times and improved productivity over Ultramid 1000.

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> North America
Test Standards Available	<ul style="list-style-type: none"> ASTM ISO
Features	<ul style="list-style-type: none"> Cycle (Production), Fast
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Injection Molding

ASTM and ISO Properties ¹

Physical	Nominal Value Unit	Test Method
Density - Specific Gravity	1.14 sp gr 23/23°C	ASTM D792
Density	1.14 g/cm ³	ISO 1183
Mold Shrink, Linear-Flow (0.125 in)	0.016 in/in	ASTM D955
Water Absorption @ Sat.	8.5 %	ASTM D570
Water Absorption Sat/23C	8.5 %	ISO 62
Water Absorption @ Equil (50% RH)	2.5 %	ASTM D570
Water Absorption 23C/50RH	2.5 %	ISO 62

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (73 °F)	493000 psi	ISO 527-1, -2
Tensile Strength @ Yield (73 °F)	13600 psi	ASTM D638
Tensile Stress at Yield (73 °F)	13100 psi	ISO 527-1, -2
Tensile Strain at Yield (73 °F)	5.0 %	ISO 527-1, -2
Tensile Elongation @ Brk (73 °F)	35 %	ASTM D638
Nominal Tensile Strain at Break (73 °F)	20 %	ISO 527-1, -2
Flexural Modulus (73 °F)	470000 psi	ASTM D790
Flexural Modulus (73 °F)	464000 psi	ISO 178
Flexural Strength (73 °F)	17800 psi	ASTM D790

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179
(-22 °F)	1.81 ft-lb/in ²	
(73 °F)	2.33 ft-lb/in ²	
Charpy Unnotched Impact Strength		ISO 179
(-22 °F)	No Break ft-lb/in ²	
(73 °F)	No Break ft-lb/in ²	
Notched Izod Impact (73 °F)	0.900 ft-lb/in	ASTM D256
Notched Izod Impact Strength (73 °F)	2.24 ft-lb/in ²	ISO 180

Thermal	Nominal Value Unit	Test Method
DTUL @66psi - Unannealed	243 °F	ASTM D648
DTUL @264psi - Unannealed	190 °F	ASTM D648
HDT A (1.80 MPa) Unannealed	187 °F	ISO 75A-1, -2
Melting Temperature (DSC)	495 °F	ISO 3146
Melting Point	494 °F	DSC

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	140 to 150	°F
Suggested Max Moisture	0.20	%
Processing (Melt) Temp	535 to 580	°F
Mold Temperature	140 to 212	°F
Injection Pressure	5000 to 18000	psi
Injection Rate	Fast	
Back Pressure	0.00 to 50.0	psi
Screw Speed	40 to 80	rpm

Notes

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