

Amilan™ U320

Nylon 66

TECHNICAL DATA

Product Description

High impact

Uses

- Appliance Components
- Automotive Applications
- Automotive Electronics
- Construction Applications
- Electrical/Electronic Applications
- Office Automation Equipment
- Rubber Replacement
- Safety Equipment
- Sporting Goods
- White Goods & Small Appliances

Processing Method

- Injection Molding

ISO Designation

- >PA66-I<

Type

- Nylon66/High impact

ASTM & ISO Properties

Physical	Dry	Water Absorption	Unit	Test Method
Density (23°C)	1.09	--	g/cm ³	ISO 1183
Molding Shrinkage ¹ (3.00 mm)	1.20 to 1.50	--	%	Internal Method
Water Absorption ² 24 hr, 23°C	1.1	--	%	ISO 62
Saturation, 23°C	6.0	--	%	
Mechanical	Dry	Water Absorption	Unit	Test Method
Tensile Strength				ISO 527-2
-40°C	100	92	MPa	
23°C	60	43	MPa	
Tensile Strain				ISO 527-2
Break, -40°C	5.5	8.5	%	
Break, 23°C	30	> 50	%	
Flexural Modulus				ISO 178
-40°C	2600	2600	MPa	
23°C	2000	800	MPa	
Flexural Stress				ISO 178
-40°C	115	110	MPa	
23°C	75	40	MPa	
Taber Abrasion Resistance				ISO 9352
1000 Cycles	7 to 8	--	mg	
Impact	Dry	Water Absorption	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-40°C	14.0	20.0	kJ/m ²	
23°C	21.5	57.0	kJ/m ²	
Hardness	Dry	Water Absorption	Unit	Test Method
Rockwell Hardness				ISO 2039-2
R-Scale, 23°C	114	--		

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Thermal	Dry	Water Absorption	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	180	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	60	--	°C	ISO 75-2/A
Melting Temperature	265	--	°C	DSC
Coefficient of Linear Thermal Expansion	10 to 11	--	cm ³ -5/cm/°C	ISO 11359-2

Additional Information

Dry Water absorption Moisture Content 2.5%

Notes

¹ 80x80x3mm

² in water

Toray Industries, Inc.

