TORZEN™

Product Information

TORZEN™ U4803 NC01

Properties (dry)		Value	Units	Method
Physical	Density	1.14	g/cm^3	ISO 1183
	Mold Shrinkage, 2.0 mm, Parallel	1.3	%	ISO 294-4
	Mold Shrinkage, 2.0 mm, Transverse	1.7	%	ISO 294-4
	Water Absorption - 24 hours		%	ISO 62
	Water Absorption - Equilibrium @ 50% RH		%	ISO 62
Mechanical	Tensile Strength at Yield (50 mm/min)	84	MPa	ISO 527
	Tensile Strength at Break	–	MPa	ISO 527
	Elongation at Yield	4.5	%	ISO 527
	Elongation at Break	50	%	ISO 527
	Tensile Modulus (1 mm/min)	2900	MPa	ISO 527
	Flexural Modulus	3000	MPa	ISO 178
	Flexural Strength	98	MPa	ISO 178
	Notched Charpy at 23°C	3.5	kJ/m^2	ISO 179
	Notched Charpy at -30°C	3.7	kJ/m^2	ISO 179
	Unnotched Charpy at 23°C	NB	kJ/m^2	ISO 179
	Unnotched Charpy at -30°C	NB	kJ/m^2	ISO 179
	Notched Izod at 23°C	5.0	kJ/m^2	ISO 180
Thermal	Melting Temperature, 10°C/min	263	°C	ISO 11357
	HDT at 0.45 MPa	205	°C	ISO 75
	HDT at 1.82 MPa	73	°C	ISO 75
	CLTE, 2.0 mm, Parallel, 23 - 55 °C	0.4	10^{-4}/°C	DIN 53752
	CLTE, 2.0 mm, Transverse, 23 - 55 °C	1.0	10^{-4}/°C	DIN 53752
Electrical	Surface Resistivity	8E+14	ohms	IEC 60093
	Volume Resistivity, 2.0 mm	3E+15	ohm-cm	IEC 60093
	Dielectric Strength, 1.0 mm	33	kV/mm	IEC 60243
	Comparative Tracking Index, 4.0 mm	600	volts	IEC 60112
Flammability	Flammability Classification (0.71 mm)		—	UL 94
	Glow Wire Flammability Index (0.71 mm)	850	°C	IEC 60695-2-12
	Glow Wire Flammability Index (1.5 mm)	850	°C	IEC 60695-2-12
	Glow Wire Flammability Index (3.0 mm)	900	°C	IEC 60695-2-12
	Glow Wire Ignition Temperature (0.71 mm)	700	°C	IEC 60695-2-12
	Glow Wire Ignition Temperature (1.5 mm)	700	°C	IEC 60695-2-12
	Glow Wire Ignition Temperature (3.0 mm)	700	°C	IEC 60695-2-12

Product Description

TORZEN™ U4803 NC01 is a general purpose, natural PA66 resin suitable for compounding, injection molding, and extrusion applications where ease of processing, good color and physical property retention are desired.

General Information

Material Status

Commercial: Active

Availability

Europe, Asia

Features

Good color retention and processability

RoHS

No intentional additives or ingredients used in TORZEN™ U4803 NC01 are among those in the European directive 2002/95/EC (RoHs), as amended.

Process Guidelines for Molding

Drying Temperature	80 °C
Drying Time*	16 - 20 hours
Barrel Temperatures	
Rear	250 - 270 °C
Middle	270 - 290 °C
Front	270 - 290 °C
Nozzle	270 - 290 °C
Processing Temperature (melt)	280 - 300 °C
Mold Temperature	50 - 90 °C
Back Pressure**	2 - 10 bar
Vent Depth	0.007 - 0.04 mm
Cushion (range)	4 - 6 mm
Suggested Moisture (max)	0.18 wt%
Suggested Moisture (min)	0.08 wt%
Screw Speed	75 - 180 rpm

* Initial moisture below 0.5 wt%. Use dehumidified air.

** Melt pressure

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Issue Date: July 2011

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