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Combined Data Sheet

Sunday, November 19, 2006

UBE Nylon 1013B (Dry)

UBE Engineering Plastics, S.A. - *Polyamide 6*

Unit System: English

Actions **Legend (Open)**

General Information

General		
Material Status	• Commercial: Active	
Availability	• North America	
Test Standards Available	• ASTM	
Features	• Abrasion Resistance, Good • Chemical Resistance, Good • Heat Resistance, High • Impact Resistance, Good • Lubricating, Self • Mold Release, Good	• Oil Resistant • Rigidity, High • Solvent Resistant • Sound Damping • Vibration Damping
Forms	• Pellets	
Processing Method	• 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
Mold Shrink, Linear-Flow	0.014 to 0.015	in/in	ASTM D955
Water Absorption @ 24 hrs	1.8	%	ASTM D570
Water Absorption @ Sat.	11	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength @ Yield	10700	psi	ASTM D638
Tensile Strength @ Break	9240	psi	ASTM D638
Tensile Elongation @ Yld	8.0	%	ASTM D638
Tensile Elongation @ Brk	170	%	ASTM D638
Flexural Modulus	369000	psi	ASTM D790
Flexural Strength @ Yield	15600	psi	ASTM D790
Compressive Strength	2840	psi	ASTM D695
Shear Strength	9240	psi	ASTM D732
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
(-22 ° F)	0.730	ft-lb/in	
(73 ° F)	1.10	ft-lb/in	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
(M-Scale)	85		
(R-Scale)	120		
Thermal	**Nominal Value**	**Unit**	**Test Method**
DTUL @66psi - Unannealed	347	° F	ASTM D648
DTUL @264psi - Unannealed	167	° F	ASTM D648
Melting Point	419 to 437	° F	
CLTE, Flow	0.000044	in/in/° F	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+15	ohm-cm	ASTM D257
Dielectric Strength	508	V/mil	ASTM D149
Dielectric Constant			ASTM D150
(60 Hz)	3.900		
(1E+6 Hz)	3.500		
Dissipation Factor			ASTM D150
(60 Hz)	0.0100		
(1E+6 Hz)	0.020		
Arc Resistance (0.0313 in)	119	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating - UL (0.0313 in)	V-2		UL 94
UL 746	**Nominal Value**	**Unit**	**Test Method**

RTI Str (0.0313 in)	149 ° F	UL 746
RTI Imp (0.0313 in)	149 ° F	UL 746
RTI Elec (0.0313 in)	149 ° F	UL 746

Processing Information

Injection	Nominal Value	Unit
Suggested Max Moisture	0.10	%
Rear Temperature	428	° F
Middle Temperature	446	° F
Front Temperature	473	° F
Nozzle Temperature	473	° F
Processing (Melt) Temp	482	° F
Mold Temperature	158 to 176	° F
Injection Pressure	9240	psi
Back Pressure	1420	psi
Screw Speed	100 to 150	rpm

Notes

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