

UBE Nylon 1013NW8

Polyamide 6



General

Generic identification and marking	PA6
Market example	Automotive, Electrical & Electronics, Industrial, General
Application example	General
Processing example	Injection molding
Elemental Technology	Good mold release
Production area	Japan, Thailand
Development product	Not applicable

Mechanical property	Unit	Test standard	Typical value
Tensile strength	MPa	ISO527-1,2	85
Tensile strain at break	%	ISO527-1,2	20
Tensile modulus	MPa	ISO527-1,2	3200
Flexural strength	MPa	ISO178	110
Flexural modulus	MPa	ISO178	2700
Charpy notched impact strength	kJ/m ²	ISO179-1/1eA	5
Tensile strength after moisture absorption	MPa	ISO527-1,2	42
Tensile modulus after moisture absorption	MPa	ISO527-1,2	1100
Tensile strain at break after moisture absorption	%	ISO527-1,2	>50
Flexural strength after moisture absorption	MPa	ISO178	36
Flexural modulus after moisture absorption	MPa	ISO178	800
Rockwell hardness (R scale)	-	ISO2039	120
Rockwell hardness (M scale)	-	ISO2039	80
Rockwell hardness (R scale) after moisture absorption	-	ISO2039	96
Rockwell hardness (M scale) after moisture absorption	-	ISO2039	34

Thermal property	Unit	Test standard	Typical value
Melting temperature	°C	ISO11357	215-225
Temperature of deflection under load at 0.45MPa	°C	ISO75-1,2	175
Temperature of deflection under load at 1.8MPa	°C	ISO75-1,2	65
Coefficient of linear thermal expansion	× 10 ⁻⁵ /K	ISO11359-2	8.0

Electrical property	Unit	Test standard	Typical value
Dielectric strength	kV/mm	IEC60243-1	20
Arc resistance	sec	ASTMD495	119
Comparative Tracking Index	-	UL746A	0
Dielectric constant	-	IEC60250	3.5
Volume resistivity	Ω · cm	IEC60093	10 ¹⁵
Dielectric constant (1 MHz)	-	ASTMD150	3.5
Dissipation factor (1 MHz)	-	ASTMD150	20

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Molding property	Unit	Test standard	Typical value
Density	g/cm ³	ISO1183	1.14
Water absorption at equilibrium	%	UBE Method	2.7
Flammability rating	-	UL94	V-2

Remarks

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* The data described herein are averaged values obtained by specified measurement: they are not guaranteed figures.

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