

UBE Nylon 3024NUX

Polyamide 12



General	
Generic identification and marking	PA12
Market example	Electrical & Electronics, Industrial, General
Application example	Electrical & Electronics, Consumer Electronics, Robotics, General
Processing example	Extrusion Coating
Elemental Technology	Good mold release
Production area	Japan
Development product	Not applicable

Mechanical property	Unit	Test standard	Typical value
Tensile strength	MPa	ISO527-1,2	46
Tensile strain at break	%	ISO527-1,2	>150
Tensile modulus	MPa	ISO527-1,2	1600
Flexural strength	MPa	ISO178	60
Flexural modulus	MPa	ISO178	1600
Charpy notched impact strength	kJ/m ²	ISO179-1/1eA	6
Tensile strength after moisture absorption	MPa	ISO527-1,2	37
Tensile modulus after moisture absorption	MPa	ISO527-1,2	1100
Tensile strain at break after moisture absorption	%	ISO527-1,2	>200
Flexural strength after moisture absorption	MPa	ISO178	46
Flexural modulus after moisture absorption	MPa	ISO178	1000
Charpy notched impact strength after moisture absorption	J/m	ISOxx179-1/1eA	9
Rockwell hardness (R scale)	-	ISO2039	105
Rockwell hardness (M scale)	-	ISO2039	48
Rockwell hardness (R scale) after moisture absorption	-	ISO2039	88
Rockwell hardness (M scale) after moisture absorption	-	ISO2039	28
Shore D hardness	-	ISO868	78

Thermal property	Unit	Test standard	Typical value
Melting temperature	°C	ISO11357	175-181
Temperature of deflection under load at 0.45MPa	°C	ISO75-1,2	85
Temperature of deflection under load at 1.8MPa	°C	ISO75-1,2	45
Coefficient of linear thermal expansion	x10 ⁻⁵ /K	ISO11359-2	13.0

Electrical property	Unit	Test standard	Typical value
Volume resistivity	Ω · cm	IEC60093	10 ¹⁵

Molding property	Unit	Test standard	Typical value
Mold shrinkage(MD)	%	ISO 294-4 D-2	0.9
Mold shrinkage(TD)	%	ISO 294-4 D-2	1.3

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Other property	Unit	Test standard	Typical value
Density	g/cm ³	ISO1183	1.02
Water absorption at equilibrium	%	UBE Method	0.7
Flammability rating	-	UL94	HB

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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