

UBE Nylon 3024U

Polyamide 12



General	
Generic identification and marking	PA12
Market example	General
Application example	General
Processing example	Extrusion Coating
Elemental Technology	Neat resin, Heat resistant
Production area	Japan
Development product	Not applicable

Mechanical property	Unit	Test standard	Typical value
Tensile strength	MPa	ISO527-1,2	45
Tensile strain at break	%	ISO527-1,2	>150
Tensile modulus	MPa	ISO527-1,2	1500
Flexural strength	MPa	ISO178	59
Flexural modulus	MPa	ISO178	1500
Charpy notched impact strength	kJ/m ²	ISO179-1/1eA	6
Rockwell hardness (R scale)	-	ISO2039	105
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	90
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
Dielectric strength	kV/mm	IEC60243-1	30
Arc resistance	sec	ASTMD495	180
Volume resistivity	Ω · cm	IEC60093	10 ¹⁵
Dielectric constant (1 MHz)	-	ASTMD150	2.9

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

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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