

UBE Nylon 3024GC6

Polyamide 12



General

Generic identification and marking	PA12-GF30
Market example	Automotive
Application example	Fuel Line
Processing example	Injection molding
Elemental Technology	Glass fiber reinforced
Production area	Japan
Development product	Not applicable

Mechanical property	Unit	Test standard	Typical value
Tensile strength	MPa	ISO527-1,2	125
Tensile strain at break	%	ISO527-1,2	7
Tensile modulus	MPa	ISO527-1,2	7000
Flexural strength	MPa	ISO178	185
Flexural modulus	MPa	ISO178	5800
Charpy notched impact strength	kJ/m ²	ISO179-1/1eA	28
Tensile strength after moisture absorption	MPa	ISO527-1,2	106
Tensile modulus after moisture absorption	MPa	ISO527-1,2	6300
Tensile strain at break after moisture absorption	%	ISO527-1,2	7
Flexural strength after moisture absorption	MPa	ISO178	163
Flexural modulus after moisture absorption	MPa	ISO178	5200
Charpy notched impact strength after moisture absorption	J/m	ISOxx179-1/1eA	28
Rockwell hardness (R scale)	-	ISO2039	110
Rockwell hardness (M scale)	-	ISO2039	72
Rockwell hardness (R scale) after moisture absorption	-	ISO2039	102
Rockwell hardness (M scale) after moisture absorption	-	ISO2039	63

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	177
Temperature of deflection under load at 1.8MPa	°C	ISO75-1,2	160
Coefficient of linear thermal expansion	x10 ⁻⁵ /K	ISO11359-2	3.0

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	0.2
Mold shrinkage(TD)	%	ISO 294-4 D-2	0.8

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Other property	Unit	Test standard	Typical value
Density	g/cm ³	ISO1183	1.24
Water absorption at equilibrium	%	UBE Method	0.6

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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