

UBE Nylon 1015GU9L

Polyamide 6



General

Generic identification and marking	PA6-GF45
Market example	Automotive, Industrial
Application example	Exterior, Electric Powertrain
Processing example	Injection molding
Elemental Technology	Glass fiber reinforced, Heat resistant
Production area	Thailand
Development product	Not applicable

Mechanical property	Unit	Test standard	Typical value
Tensile strength	MPa	ISO527-1,2	225
Tensile strain at break	%	ISO527-1,2	3
Tensile modulus	MPa	ISO527-1,2	15000
Flexural strength	MPa	ISO178	360
Flexural modulus	MPa	ISO178	14000
Charpy notched impact strength	kJ/m ²	ISO179-1/1eA	19
Tensile strength after moisture absorption	MPa	ISO527-1,2	170
Tensile modulus after moisture absorption	MPa	ISO527-1,2	11000
Tensile strain at break after moisture absorption	%	ISO527-1,2	4
Flexural strength after moisture absorption	MPa	ISO178	230
Flexural modulus after moisture absorption	MPa	ISO178	9000
Charpy notched impact strength after moisture absorption	J/m	ISOxx179-1/1eA	26
Rockwell hardness (R scale)	-	ISO2039	120
Rockwell hardness (M scale)	-	ISO2039	105
Rockwell hardness (R scale) after moisture absorption	-	ISO2039	115

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	220
Temperature of deflection under load at 1.8MPa	°C	ISO75-1,2	210
Coefficient of linear thermal expansion	× 10 ⁻⁵ /K	ISO11359-2	2.0

Electrical property	Unit	Test standard	Typical value
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Molding property	Unit	Test standard	Typical value
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Other property	Unit	Test standard	Typical value
Density	g/cm ³	ISO1183	1.50
Water absorption at equilibrium	%	UBE Method	1.3
Flammability rating	-	UL94	HB

Remarks

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