

UBE Nylon 1015GC9

Polyamide 6



General

Generic identification and marking PA6-GF45

Market example Automotive, Industrial

Application example Building · Construction

Processing example Injection molding

Elemental Technology Glass fiber reinforced

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	14200
Flexural strength	MPa	ISO178	350
Flexural modulus	MPa	ISO178	13400
Charpy notched impact strength	kJ/m ²	ISO179-1/1eA	20
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	x10 ⁻⁵ /K	ISO11359-2	2.0

Electrical property

	Unit	Test standard	Typical value
Arc resistance	sec	ASTMD495	138
Comparative Tracking Index	-	UL746A	1
Dielectric constant	-	IEC60250	3.9
Volume resistivity	Ω · cm	IEC60093	10 ¹⁵
Volume resistivity after moisture absorption	Ω · cm	IEC60093	10 ¹²

Molding property

Other property

	Unit	Test standard	Typical value
Density	g/cm ³	ISO1183	1.50
Water absorption at equilibrium	%	UBE Method	1.3
Water absorption at saturated	%	UBE Method	5.5

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