

# UBE Nylon 3035LU1

Polyamide 12



## General

Generic identification and marking	PA12
Market example	Electrical & Electronics, Industrial
Application example	Wire & Cable, Fuel Line, Building • Construction
Processing example	Injection molding, Extrusion Coating
Elemental Technology	Single layer
Production area	Japan
Development product	Not applicable

## Mechanical property

	Unit	Test standard	Typical value
Tensile strength	MPa	ISO527-1,2	50
Tensile strain at break	%	ISO527-1,2	>150
Tensile modulus	MPa	ISO527-1,2	1700
Flexural strength	MPa	ISO178	60
Flexural modulus	MPa	ISO178	1500
Charpy notched impact strength	kJ/m <sup>2</sup>	ISO179-1/1eA	20
Rockwell hardness (R scale)	-	ISO2039	107
Shore D hardness	-	ISO868	79

## 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	105
Temperature of deflection under load at 1.8MPa	°C	ISO75-1,2	45
Coefficient of linear thermal expansion	x10 <sup>-5</sup> /K	ISO11359-2	12.0

## 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 <sup>14</sup>
Dielectric constant (1 MHz)	-	ASTMD150	3.1

## Molding property

	Unit	Test standard	Typical value
Mold shrinkage(MD)	%	ISO 294-4 D-2	0.7
Mold shrinkage(TD)	%	ISO 294-4 D-2	1.5

## Other property

	Unit	Test standard	Typical value
Density	g/cm <sup>3</sup>	ISO1183	1.02
Water absorption at equilibrium	%	UBE Method	0.6

## Remarks

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