

# UBE Nylon 3012U

Polyamide 12



## General

Generic identification and marking	PA12
Market example	Automotive, Electrical & Electronics, Industrial, General
Application example	Electric Powertrain, Electrical & Electronics, General
Processing example	Injection molding
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	47
Tensile strain at break	%	ISO527-1,2	>150
Tensile modulus	MPa	ISO527-1,2	1500
Flexural strength	MPa	ISO178	62
Flexural modulus	MPa	ISO178	1500
Charpy notched impact strength	kJ/m <sup>2</sup>	ISO179-1/1eA	3
Rockwell hardness (R scale)	-	ISO2039	105
Shore D hardness	-	ISO868	77

## 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	103
Temperature of deflection under load at 1.8MPa	°C	ISO75-1,2	48
Coefficient of linear thermal expansion	x10 <sup>-5</sup> /K	ISO11359-2	15.0

## Electrical property

	Unit	Test standard	Typical value
Volume resistivity	Ω · cm	IEC60093	10 <sup>15</sup>

## Molding property

	Unit	Test standard	Typical value
Mold shrinkage(MD)	%	ISO 294-4 D-2	0.8
Mold shrinkage(TD)	%	ISO 294-4 D-2	0.9

## Other property

	Unit	Test standard	Typical value
Density	g/cm <sup>3</sup>	ISO1183	1.02

## Remarks

\* The contents of here written materials were prepared based on materials, information and data available at the present moment. They may be revised because of new knowledge, information and data without notification.

\* The data described herein are averaged values obtained by specified measurement: they are not guaranteed figures.

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