

# UBE Nylon 1018I

Polyamide 6



## General

Generic identification and marking	PA6-I
Market example	Electrical & Electronics
Application example	Consumer Electronics, General
Processing example	Injection molding
Elemental Technology	Impact resistant
Production area	Japan
Development product	Not applicable

## Mechanical property

	Unit	Test standard	Typical value
Tensile strength	MPa	ISO527-1,2	45
Tensile strain at break	%	ISO527-1,2	>50
Tensile modulus	MPa	ISO527-1,2	1400
Flexural strength	MPa	ISO178	55
Flexural modulus	MPa	ISO178	1400
Charpy notched impact strength	kJ/m <sup>2</sup>	ISO179-1/1eA	125
Tensile strength after moisture absorption	MPa	ISO527-1,2	23
Tensile modulus after moisture absorption	MPa	ISO527-1,2	500
Tensile strain at break after moisture absorption	%	ISO527-1,2	>50
Flexural strength after moisture absorption	MPa	ISO178	19
Flexural modulus after moisture absorption	MPa	ISO178	400
Rockwell hardness (R scale)	-	ISO2039	100
Rockwell hardness (M scale)	-	ISO2039	30
Rockwell hardness (R scale) after moisture absorption	-	ISO2039	65
Rockwell hardness (M scale) after moisture absorption	-	ISO2039	13

## 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	75
Temperature of deflection under load at 1.8MPa	°C	ISO75-1,2	50
Coefficient of linear thermal expansion	x10 <sup>-5</sup> /K	ISO11359-2	10.0

## Electrical property

	Unit	Test standard	Typical value
Comparative Tracking Index	-	UL746A	0

## Molding property

## Other property

	Unit	Test standard	Typical value
Density	g/cm <sup>3</sup>	ISO1183	1.07
Water absorption at equilibrium	%	UBE Method	2.0

## Remarks

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