

## UBE NYLON 1018SE

### Technical Product Information

UBE NYLON 1018SE is a flame retardant, impact modified Polyamide 6. It is most suitable for extrusion of corrugated tubing which is used to cover electric wire harness and cable automobile. This material has following features:

- Non-halogen and non-phosphorous flame retardant
- High long-term stability
- Excellent processability

Basic Properties <sup>(1)</sup>		Method	Unit	Value
<b>Polymer</b>		-	-	PA6
<b>Colour</b>		-	-	Gray
<b>Density</b>		ISO 1183-3	g/cm <sup>3</sup>	1,14
<b>Melting Point</b>		ISO 11357	°C	220
<b>MFI @ 235°C, 2.16 Kg</b>		ISO 1133	g/10min	9
<b>Shore Hardness</b>	D scale	ISO 868	-	71
<b>Rockwell Hardness</b>	R scale	ISO 2039-2	-	121

Mechanical Properties <sup>(2)</sup>		Method	Unit	Value
<b>Tensile stress at break</b>		ISO 527-1,2	MPa	86
<b>Tensile strain at break</b>			%	14
<b>Flexural strength</b>		ISO 178	MPa	112
<b>Flexural modulus</b>			MPa	2900
<b>Charpy impact strength (notched) <sup>(3)</sup></b>	23 °C	ISO 179/1eA	kJ/m <sup>2</sup>	5 C
	-40 °C		kJ/m <sup>2</sup>	5 C

Thermal Properties <sup>(2)</sup>		Method	Unit	Value
<b>Temp. of deflection under load</b>	0,45 MPa	ISO 75-2	°C	182
	1,80 MPa		°C	60
<b>Coefficient of linear expansion</b>		ISO 11359-2	x 10 <sup>-4</sup> /K	1,5

Flammability Properties <sup>(2)</sup>		Method	Unit	Value
<b>Oxygen Index</b>		ISO 4589	%	28
<b>Flammability</b>		IEC 60695	-	V2

Note: All tests carried dry as mould  
 (1) Measured on pellets  
 (2) Measured on injection-moulded specimens, based on ISO type  
 (3) P=partial break, C=complete break



## Processing conditions

	Cylinder					Adaptor	Die
	Hopper	Zone 1	Zone 2	Zone 3	Zone 4		
<b>Temperature (°C)</b>	40 - 120	220 - 240	240 - 260	240 - 260	240 - 260	240 - 260	240 - 260

## Drying conditions

UBE NYLON is supplied dry (moisture content < 0,1%) and packed in high barrier films. However, as polyamide is a hygroscopic material, the user should take a special care of the possible moisture absorption once the bag or liner box has been opened. In case of moisture absorption, the material should be dried with dehumidified air at 80°C for more than 4 hours.

## Storage

Well-sealed packages could be stored in cool and dry conditions over long periods of time. Protect the packages from heat and direct sunlight to prevent possible damages.

