UBESTA 3012U

Technical Product Information

UBESTA 3012U is a heat stabilized polyamide 12 suitable for a wide range of injection moulding applications. Material offers good viscosity stability in compounding of highly filled systems as used for plastics magnets. This material has following features:

- Low moisture absorption, excellent dimensional stability
- Excellent moldability, high flowability
- High heat resistance

Basic Properties [1]	Method	Unit	Value
Polymer	-	-	PA12
Colour	-	-	Natural
Density	ISO 1183-3	g/cm^3	1,02
Melting Point	ISO 11357	°C	175 - 181
MFI @ 190 °C, 1 Kg	ISO 1133	g/10 min	17

Mechanical Properties [2]		Method	Unit	Value
Tensile stress at yield		ISO 527-1,2	MPa	47
Tensile strain at break			%	> 50
Tensile modulus			MPa	1500
Flexural strength		ISO 178	MPa	62
Flexural modulus			MPa	1500
Charpy impact strength (notched) [3]	23 °C	ISO 179/1eA	kJ/m^2	3 C
	-40 °C		kJ/m^2	3 C

Thermal Properties [2]		Method	Unit	Value
Temp. of deflection under load	0,45 MPa	ISO 75-2	°C	103
	1,80 MPa		°C	48
Coefficient of linear expansion		ISO 11359-2	x 10^{-4} /K	1,5

Others [4]		Method	Unit	Value
Molding shrinkage	MD	UBE Method	%	0,8
	TD		%	0,9

Note: All tests carried dry as mould
(1) Measured on pellets
(2) Measured on injection-moulded specimens, based on ISO type
   partial break, C=complete break
   nple dimension is 30×100×3mm

Processing conditions

	Cylinder					Die
	Hopper	Zone 1	Zone 2	Zone 3	Zone 4	
Temperature (°C)	40 - 120	180-200	200 – 220	210 - 230	210 - 230	210 – 230

Drying conditions

UBESTA 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.