Orgalloy® LE 6000 NAT

PA6... ARKEMA

Product Texts

Orgalloy® LE 6000 NAT resin is a polyamide alloy especially designed for cable sheathing and blown film extrusion. This natural grade dedicated to extrusion offers excellent barrier properties and chemical resistance to hydrocarbons, alcohols and solvents. Conform to the European regulations concerning materials in contact with foodstuffs.

Main applications:

- Hydrocarbons barrier layer for power & data cables
- Food and chemical packaging

Packaging:
This grade is delivered dried in sealed packaging (25kg bags) ready to be processed.

Shelf life:
Two years from the date of delivery. For any use above this limit, please refer to our technical services.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**2.5 / ***	cm³/10min	ISO 1133
Temperature	**235 / ***	°C	-
Load	**2.16 / ***	kg	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**1815 / 1400**	MPa	ISO 527
[C] Yield stress	**44 / 36**	MPa	ISO 527
[C] Yield strain	**4 / 7**	%	ISO 527
[C] Nominal strain at break	**>50 / >50**	%	ISO 527
[C] Tensile creep modulus, 1h	*** / 1130**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 520**	MPa	ISO 899-1
[C] Charpy notched impact strength, +23°C	**29 / 35**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**11 / 11**	kJ/m²	ISO 179/1eA
[C] Shore D hardness	**66 / ***	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**220 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**50 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**84 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**118 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**216 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**170 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.6 / ***	mm	-
[C] Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**3.2 / ***	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Comparative tracking index	*** / 600**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**7 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**2.5 / ***	%	Sim. to ISO 62

[C] Density	**1040 / 1040**	kg/m³	ISO 1183

[C]: CAMPUS

Film Properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Stress at yield, parallel	**25 / ***	MPa	ISO 527-3
[C] Stress at yield, normal	**26 / ***	MPa	ISO 527-3
[C] Strain at yield, parallel	**20 / ***	%	ISO 527-3
[C] Strain at yield, normal	**14 / ***	%	ISO 527-3
[C] Maximum stress, parallel	**53 / ***	MPa	ISO 527-3
[C] Maximum stress, normal	**41 / ***	MPa	ISO 527-3
[C] Maximum strain, parallel	**410 / ***	%	ISO 527-3
[C] Maximum strain, normal	**490 / ***	%	ISO 527-3
[C] Elmendorf Tear resistance, parallel	**25 / ***	N	ISO 6383-2
[C] Elmendorf Tear resistance, normal	**150 / ***	N	ISO 6383-2
[C] Dart drop B	**313 / ***	g	ISO 7765-1
[C] WVTR, 23°C/85%r.h.	**60 / ***	g/(m²*d)	ISO 15106-1/-2
[C] Oxygen transmission rate, 23°C/0%r.h.	**90 / ***	cm³/(m²*d*bar)	ISO 15105-1/-2
[C] Oxygen transmission rate, 23°C/85%r.h.	**90 / ***	cm³/(m²*d*bar)	ISO 15105-1/-2
[C] Carbon Dioxide transm. rate, 23°C/0%r.h.	**290 / ***	cm³/(m²*d*bar)	ISO 15105-1/-2
[C] Carbon Dioxide transm. rate, 23°C/85%r.h.	**290 / ***	cm³/(m²*d*bar)	ISO 15105-1/-2

[C]: CAMPUS

Characteristics

Processing
Profile Extrusion, Sheet Extrusion, Other Extrusion

Delivery form
Pellets, Natural Color

Special Characteristics
Light stabilized or stable to light, Heat stabilized or stable to heat

Certifications
Food contact

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Other extrusion

Processing conditions:
- Drying time (only necessary for bags opened for more than two hours): 4-8 hours at 80°C
- Extrusion melt temperature (min-recommended-max): 250-260-270°C