Akulon® Care K1U

PA6 Envalior

Product Texts

Low Viscosity, Medical grade, Food Contact Quality

ISO 1043 PA6

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**185 / ***	cm³/10min	ISO 1133
Temperature	**275 / ***	°C	-
Load	**5 / ***	kg	-
[C] Molding shrinkage, parallel	**1.1 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.1 / ***	%	ISO 294-4, 2577
[C] Density of melt	**960**	kg/m³	-
[C] Thermal conductivity of melt	**0.23**	W/(m K)	-
[C] Spec. heat capacity of melt	**2680**	J/(kg K)	-
[C] Eff. thermal diffusivity	**8.82E-8**	m²/s	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**3200 / 1000**	MPa	ISO 527
[C] Yield stress	**87 / 45**	MPa	ISO 527
[C] Yield strain	**4 / 25**	%	ISO 527
[C] Nominal strain at break	**20 / >50**	%	ISO 527
[C] Charpy impact strength, +23°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**8 / 35**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**5 / 5**	kJ/m²	ISO 179/1eA

[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	**60 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**150 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**195 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**90 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**90 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**V-2 / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Burning Behav. at thickness h	**V-2 / ***	class	IEC 60695-11-10
Thickness tested	**3.0 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Oxygen index	**26 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.2 / 14**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3 / 4.5**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**50 / 3000**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**150 / 1200**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13 / 1E10**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E14**	Ohm	IEC 62631-3-2
[C] Electric strength	**25 / 20**	kV/mm	IEC 60243-1
[C] Comparative tracking index	*** / 600**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**9 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**2.5 / ***	%	Sim. to ISO 62
[C] Density	**1130 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Applications
Medical

Delivery form
Pellets

Regional Availability
North America, Europe, Asia Pacific

Certifications
Food contact, Medical Grade

Other text information

Injection molding
Injection Molding Recommendations
Steel recommendations for molds screws and barrels
Trouble shooting guideline for injection molding