

Product Texts

Product-nomenclature: ISO16396-PA12,,E,C24-010

Product Attributes

High viscosity

Markets

Industry & Consumer goods

Medical devices

Packaging

Non oriented film

Approvals

Food Contact

EU Requirements, FDA

Medical

USP VI

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	20 / *	cm ³ /10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
^[C] Density of melt	860	kg/m ³	-
^[C] Thermal conductivity of melt	0.22	W/(m K)	-
^[C] Spec. heat capacity of melt	2900	J/(kg K)	-
^[C] Eff. thermal diffusivity	8.82E-8	m ² /s	-
^[C] Ejection temperature	140	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	1400 / 1100	MPa	ISO 527
^[C] Yield stress	45 / 40	MPa	ISO 527
^[C] Yield strain	10 / 12	%	ISO 527
^[C] Nominal strain at break	>50 / >50	%	ISO 527
^[C] Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	- / 10	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	- / 7	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	178 / *	°C	ISO 11357-1/-3

[C]: CAMPUS

Optical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Gloss, 60°	150 / *	-	ISO 2813

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	1.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.7 / *	%	Sim. to ISO 62
^[C] Density	1010 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Film Properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Stress at yield, parallel	35 / *	MPa	ISO 527-3
^[C] Stress at yield, normal	35 / *	MPa	ISO 527-3
^[C] Strain at yield, parallel	6 / *	%	ISO 527-3
^[C] Strain at yield, normal	6 / *	%	ISO 527-3
^[C] Maximum strain, parallel	850 / *	%	ISO 527-3
^[C] Maximum strain, normal	900 / *	%	ISO 527-3
^[C] Elmendorf Tear resistance, parallel	10 / *	N	ISO 6383-2
^[C] Elmendorf Tear resistance, normal	10 / *	N	ISO 6383-2
^[C] Trouser Tear resistance, parallel	20 / *	N/mm	ISO 6383-1
^[C] Trouser Tear resistance, normal	25 / *	N/mm	ISO 6383-1
^[C] WVTR, 23°C/85%r.h.	8 / *	g/(m ² *d)	ISO 15106-1/-2
^[C] Oxygen transmission rate, 23°C/0%r.h.	350 / *	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
^[C] Oxygen transmission rate, 23°C/85%r.h.	370 / *	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
^[C] Carbon Dioxide transm. rate, 23°C/0%r.h.	1500 / *	cm ³ /(m ² *d*bar)	ISO 15105-1/-2
^[C] Carbon Dioxide transm. rate, 23°C/85%r.h.	1600 / *	cm ³ /(m ² *d*bar)	ISO 15105-1/-2

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	250	°C	ISO 294
Injection Molding, mold temperature	40	°C	ISO 294
Injection Molding, injection velocity	250	mm/s	ISO 294
Injection Molding, pressure at hold	75	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing

Injection Molding, Film Extrusion, Other Extrusion

Delivery form

Granules, Natural Color

Special Characteristics

Light stabilized or stable to light

Certifications

Food contact, Food approval FDA 21 CFR, Medical Grade, US Pharmacopeia Class VI Approved

Applications

Medical, Packaging

Regional Availability

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

Other text information

Film extrusion

PREPROCESSING

Max. water content : <= 0.1 %

PROCESSING

Melt temperature : 230-250 °C

Smooth or roughened feeding zone : 60-80 °C

Barrel temp. profile : 230-240 °C

Head temp. : 240 °C

Please consider the information about the application of the materials.