

Product Texts

Zytel® FG42A is a high viscosity polyamide 66 for injection molding and extrusion. It has improved break resistance for thick-walled parts. It has been developed for consideration into applications such as parts for the food industry.

FOOD CONTACT

This product is manufactured according to Good Manufacturing Practice (GMP) principles and generally accepted in food contact applications in Europe and the USA when meeting applicable use conditions. For details, individual compliance statements are available from our representative.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	1.4 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.4 / *	%	ISO 294-4, 2577
^[C] Density of melt	1010	kg/m ³	-
^[C] Thermal conductivity of melt	0.16	W/(m K)	-
^[C] Spec. heat capacity of melt	2790	J/(kg K)	-
^[C] Ejection temperature	150	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3100 / 1300	MPa	ISO 527
^[C] Yield stress	83 / 55	MPa	ISO 527
^[C] Yield strain	4.4 / 27	%	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	6 / 20	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	6 / 4	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	262 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	70 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	70 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	200 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	244 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	100 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	100 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	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	28 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.3 / 10	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.6 / 4.2	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	150 / 2000	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	150 / 750	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E13 / 1E11	Ohm*m	IEC 62631-3-1
^[C] Electric strength	31 / -	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	8.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	2.6 / *	%	Sim. to ISO 62
^[C] Density	1140 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	300 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Coating, Casting

Delivery form

Pellets, Natural Color

Additives

Release agent

Certifications

Food contact

Regional Availability

North America, Europe, Asia Pacific, South and Central America