polycase

Datasheet of Polyamid, 30% glassfiber reinforced used for SK Series screws

Product Texts
Glass fibre reinforced injection moulding grade for industrial articles and electrical insulating parts.

Rheological properties	dry / cond	Unit	Test Standard
CAMPUS/ISO Data			
Melt volume-flow rate	**50 / ***	cm³/10min	ISO 1133
Temperature	**275 / ***	°C	ISO 1133
Load	**5 / ***	kg	ISO 1133
Molding shrinkage (parallel)	**0.3 / ***	%	ISO 294-4, 2577
Molding shrinkage (normal)	**0.8 / ***	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
CAMPUS/ISO Data			
Tensile Modulus	**9500 / 6200**	MPa	ISO 527-1/-2
Stress at break	**185 / 115**	MPa	ISO 527-1/-2
Strain at break	**3.5 / 8**	%	ISO 527-1/-2
Charpy impact strength (+23°C)	**95 / 110**	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	**80 / -**	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	**15 / 30**	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	**11 / -**	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
CAMPUS/ISO Data			
Melting temperature (10°C/min)	**220 / ***	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	**210 / ***	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	**220 / ***	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	**220 / ***	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	**22.5 / ***	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	**65 / ***	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.6 / ***	mm	IEC 60695-11-10
UL recognition	**UL / ***	-	-
Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**0.8 / ***	mm	IEC 60695-11-10
UL recognition	**UL / ***	-	-
Oxygen index	**22.5 / ***	%	ISO 4589-1/-2

Electrical properties	dry / cond	Unit	Test Standard
CAMPUS/ISO Data			
Relative permittivity (1MHz)	**3.8 / 6.8**	-	IEC 60250
Dissipation factor (100Hz)	**230 / 2200**	E-4	IEC 60250
Dissipation factor (1MHz)	**230 / 2200**	E-4	IEC 60250
Volume resistivity	**1E13 / 1E10**	Ohm*m	IEC 60093
Surface resistivity	*** / 1E10**	Ohm	IEC 60093
Comparative tracking index	**- / 575**	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
CAMPUS/ISO Data			
Water absorption	**6.6 / ***	%	Sim. to ISO 62
Humidity absorption	**2.1 / ***	%	Sim. to ISO 62
Density	**1360 / -**	kg/m³	ISO 1183

Material specific properties	dry / cond	Unit	Test Standard

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CAMPUS/ISO Data			
Viscosity number	**140** / *	cm^3/g	ISO 307, 1157, 1628

Rheological calculation properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Spec. heat capacity melt	**2230**	J/(kg K)	-
Ejection temperature	**160**	°C	-

Test specimen production	Value	Unit	Test Standard
CAMPUS/ISO Data			
Injection Molding, melt temperature	**280**	°C	ISO 294
mold temperature	**80**	°C	ISO 10724
injection velocity	**300**	mm/s	ISO 294

Characteristics

Processing

Injection Molding

Special Characteristics

Heat stabilized or stable to heat

Delivery form

Pellets

Regional Availability

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

Additives

Lubricants, Release agent

Other text information

Injection molding

PREPROCESSING
Pre/Post-processing, max. allowed water content: .15 %
Pre/Post-processing, Pre-drying, Temperature: 80 °C
Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING
injection molding, Melt temperature, range: 270 - 290 °C
injection molding, Melt temperature, recommended: 280 °C
injection molding, Mold temperature, range: 80 - 90 °C
injection molding, Mold temperature, recommended: 80 °C
injection molding, Dwell time, thermopl astics: 10 min

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