Ultramid® T KR 4355 G5 LS BK23189

PA6T/6-GF25 BASF

Product Texts

Glass fibre reinforced partially aromatic polyamide for injection moulding. High toughness, stiffness and strength, low water absorption, high melting point (295 °C), good laser markability.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.5 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.0 / ***	%	ISO 294-4, 2577
[C] Ejection temperature	**228**	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**9000 / 9000**	MPa	ISO 527
[C] Stress at break	**185 / -**	MPa	ISO 527
[C] Strain at break	**3 / -**	%	ISO 527
[C] Tensile creep modulus, 1000h	*** / 6500**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**80 / -**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**11 / -**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**295 / ***	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**105 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**245 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**285 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**25 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**55 / ***	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	-
Yellow Card available	**yes / ***	-	-
[C] Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**0.8 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Oxygen index	**24 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 1MHz	**4.3 / 4.5**	-	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**300 / 400**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13 / 1E12**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E13**	Ohm	IEC 62631-3-2
[C] Electric strength	**33 / 31**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**- / 600**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**5.5 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**1.3 / ***	%	Sim. to ISO 62
[C] Density	**1350 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Viscosity number	**130 / ***	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**320**	°C	ISO 294
Injection Molding, mold temperature	**100**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**110**	°C	-
Pre-drying - Time	**8**	h	-
Processing humidity	**≤0.15**	%	-
Melt temperature	**310 - 330**	°C	-
Mold temperature	**80 - 120**	°C	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Black

Additives
Release agent

Special Characteristics
Heat stabilized or stable to heat

Features
Laser Markable

Regional Availability
Europe

Other text information

Injection molding
PREPROCESSING
Pre/Post-processing, max. allowed water content: .15 %
Pre/Post-processing, Pre-drying, Temperature: 110 °C
Pre/Post-processing, Pre-drying, Time: 8 h

PROCESSING
injection molding, Melt temperature, range: 310 - 330 °C
injection molding, Melt temperature, recommended: 320 °C
injection molding, Mold temperature, range: 80 - 120 °C
injection molding, Mold temperature, recommended: 100 °C
injection molding, Dwell time, thermoplastics: 5 min