

Product Texts

Without halogens flame retardant glass fiber reinforced injection moulding grade for plastic parts in electrical applications. The product provides good mechanical and electrical properties. Due to the halide free stabilization the impact on corrosion is minimized and sensitive electronic components are better protected. In particular optimized for the glow wire requirements of IEC 60335.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	25 / *	cm ³ /10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
^[C] Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	11500 / 8200	MPa	ISO 527
^[C] Stress at break	170 / 115	MPa	ISO 527
^[C] Strain at break	2.5 / 3.9	%	ISO 527
^[C] Charpy impact strength, +23°C	65 / 70	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	45 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	7 / 8.5	kJ/m ²	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	210 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	220 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	23 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	82 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. 5V at thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Oxygen index	30 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 1MHz	4.1 / 4.7	-	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	170 / 730	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E12 / 1E8	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E12	Ohm	IEC 62631-3-2
^[C] Electric strength	39 / -	kV/mm	IEC 60243-1
^[C] Comparative tracking index	- / 450	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	5.6 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.6 / *	%	Sim. to ISO 62
^[C] Density	1500 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Ultramid® B3U50G6 BK

PA6-GF30 FR(53+30)

BASF

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	115 / *	cm ³ /g	ISO 307, 1157, 1628
[C]: CAMPUS			

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.15	%	-
Melt temperature	240 - 265	°C	-
Mold temperature	80 - 90	°C	-

Characteristics**Processing**

Injection Molding

Applications

Electrical and Electronical

Delivery form

Black

Regional Availability

Europe

Special Characteristics

Flame retardant, Halogen-free

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: 240 - 265 °C

injection molding, Melt temperature, recommended: 260 °C

injection molding, Mold temperature, range: 80 - 90 °C

injection molding, Mold temperature, recommended: 80 °C

injection molding, Dwell time, thermoplastics: 5 min