

PA6 injection molding grade, 30% glass fiber reinforced, flame retardant, natural color.

Property	Test Condition	Unit	Standard	Value	Value
Rheological properties				D.A.M	Moisture Content
Melt volume-flow rate	275 °C;5 kg	cm ³ /(10min)	ISO 1133	64	
Molding shrinkage, parallel	60x60x2mm/MT 80°C	%	ISO 294	0.3	
Molding shrinkage, normal	60x60x2mm/MT 80°C	%	ISO 294	0.7	
Mechanical properties					
Tensile modulus	1 mm/min	Mpa	ISO 527-1,-2	-	-
Tensile Stress at break	5 mm/min	Mpa	ISO 527-1,-2	160	-
Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.5	-
Tensile creep modulus	1 h	Mpa	ISO 899-1	-	-
Tensile creep modulus	1000 h	Mpa	ISO 899-1	-	-
Charpy impact strength	23°C	kJ/m ²	ISO 179-1eU	60.0	-
Charpy impact strength	-30°	kJ/m ²	ISO 179-1eU	-	-
Charpy notched impact strength	23°C	kJ/m ²	ISO 179-1eA	8.1	-
Charpy notched impact strength	-30°C	kJ/m ²	ISO 179-1eA	-	-
Izod impact strength	23°C	kJ/m ²	ISO 180-1U	-	-
Izod impact strength	-30°C	kJ/m ²	ISO 180-1U	-	-
Izod notched impact strength	23°C	kJ/m ²	ISO 180-1A	8.0	-
Izod notched impact strength	-30°C	kJ/m ²	ISO 180-1A	-	-
Izod notched impact strength	-40°C	kJ/m ²	ISO 180-1A	-	-
Flexural modulus	5 mm/min	MPa	ISO 178	9000	-
Flexural strength	5 mm/min	Mpa	ISO 178	255	-
Flexural strain at flexural strength	2 mm/min	%	ISO 178	-	-
Flexural stress at 3.5% strain	2 mm/min	Mpa	ISO 178	-	-
Ball indentation hardness		N/mm ²	ISO2039-1	92	-
Thermal properties					
Melting temperature	10°C/min	°C	ISO 11357-1,-3	260	
Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	215	
Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	-	-
Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	-	-
Vicat softening temperature	50 N; 50°C/h	°C	ISO 306	-	-
Coefficient of linear thermal expansion, parallel	23 to 55°C	10 ⁻⁴	ISO 11359-1,-2	-	-
Coefficient of linear thermal expansion, transverse	23 to 55°C	10 ⁻⁴	ISO 11359-1,-2	-	-
Burning behavior UL 94 (1.6mm)	1.6 mm	Class	UL 94		V0
Burning behavior UL 94	3.2 mm	Class	UL 94		-
Oxygen index	Method A	%	ISO 4589-2	-	-
Glow wire test (GWFI)	2.0 mm	°C	IEC 60695-2-12	-	-
Burning rate (US-FMVSS)	d = 1,01mm	mm/min	ISO 3795	-	-
Electric properties					
Relative permittivity	100 Hz		IEC 60250	-	-
Relative permittivity	1 MHz		IEC 60250	-	-
Electric strength	1 mm	kV/mm	IEC 60243-1	-	-
Comparative tracking index CTI	Solution A	Rating	IEC 60112	-	-
Comparative index CTI M	Solution B	Rating	IEC 60112	-	-
Electrolytic corrosion		Rating	IEC 60426	-	-
Other properties (23°C)					
Water absorption	Water at 23°C/24hr	%	ISO 62		0.9
Moisture absorption (Equilibrium value)	23°C; 50 % RH	%	ISO 62		-
Density		kg/m ³	ISO 1183		1.62
Glass fiber / glass bead / filler content		%	ISO 3451-1		30
Bulk density		kg/m ³	ISO 60		-
Processing conditions for test specimens					
Injection molding-Melt temperature		°C	ISO 294		270~290
Injection molding-Mold temperature		°C	ISO 294		80~120
Drying temperature		°C	-		80
Drying time dry air dryer		h	-		2~6
Residual moisture content		%	Karl Fischer		<0.1

Disclaimer

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Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the colouring.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.