Durethan BTC965FM30 000000

PA 6, 68 % mineral, injection molding, halogen free flame retardant, improved heat conductivity, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6,MD68 FR(61),GF2HR,S12-140

Rheological properties Since State Sta	Property	Test Condition	Unit	Standard	guide value d.a.m.	cond.
°C; 600 bar 'SC; 600 bar ISO 294-4 0.5 Post-shrinkage, transverse 60x60x2; 120 °C; 4 h % ISO 294-4 0.1 Post-shrinkage, transverse 60x60x2; 120 °C; 4 h % ISO 294-4 0.1 Mechanical properties (23 °C/50 % r. h.) Imm/min MPa ISO 527-1,-2 13100 6700 CTensile modulus 1 <mm min<="" td=""> MPa ISO 527-1,-2 0.7 1.2 CTensile Stress at break 5<mm min<="" td=""> MPa ISO 527-1,-2 0.7 1.2 Charpy impact strength 23 °C k.J/m² ISO 179-1eU 9 9 Izod impact strength 23 °C k.J/m² ISO 178-A 14200 6200 Flexural strength 2<mm min<="" td=""> MPa ISO 178-A 120 1.8 Flexural strength 2<mm min<="" td=""> % ISO 178-A 1.2 1.8 Vicat softening temperature 10 °C/min<°C ISO 11357-1,-3 220 C CTemperature of deflection under load 1.80 MPa<°C ISO 11357-1,-2 160 Vi</mm></mm></mm></mm>	Rheological properties					
"C; 600 bar Post-shrinkage, parallel 60x60x2; 120 °C; 4 h % ISO 294-4 0.1 Mechanical properties (23 °C/50 % r. h.) Tensile modulus 1 mm/min MPa ISO 527-1,-2 13100 6700 CTensile Stress at break 5 mm/min MPa ISO 527-1,-2 0.7 1.2 Changy impact strength 23 °C kJ/m² ISO 180-1U 9 9 Izod impact strength 23 °C kJ/m² ISO 180-1U 10 10 Flexural Modulus 2 mm/min MPa ISO 178-A 1320 650 Flexural strength 2 mm/min MPa ISO 178-A 1.20 6200 Flexural strength 2 mm/min % ISO 178-A 1.20 620 Coefficient of linear thermal expansion, parallel 21 m/min % ISO 178-A 1.20 6200 Coefficient of linear thermal expansion, parallel 21 m/min °C ISO 1357-1,-3 220 C CTemsteresture 10 °C/min °C ISO 1357-1,-2 160 Vicat so	C Molding shrinkage, parallel		%	ISO 294-4	0.6	
Post-shrinkage, transverse 60x80x2; 120 °C; 4 h % ISO 294-4 0.1 Mechanical properties (23 °C/50 % r. h.) CTensile modulus 1 mm/min MPa ISO 527-1,-2 13100 6700 CTensile Strain at break 5 mm/min MPa ISO 527-1,-2 0.7 1.2 Changy impact strength 23 °C kJ/m² ISO 180-1U 9 9 Izod impact strength 23 °C kJ/m² ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 1420 6200 Flexural strength 2 mm/min MPa ISO 178-A 1.20 65 Flexural strength 2 mm/min % ISO 178-A 1.2 1.8 Thermal properties C ISO 11357-1,-3 220 C C Iso 11357-1,-3 220 C C ISO 1306 212 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 C C ISO 2007-4 2.5 T T <td>C Molding shrinkage, transverse</td> <td></td> <td>%</td> <td>ISO 294-4</td> <td>0.5</td> <td></td>	C Molding shrinkage, transverse		%	ISO 294-4	0.5	
Mechanical properties (23 °C/50 % r. h.) CTensile modulus 1 mm/min MPa ISO 527-1,2 13100 6700 CTensile Stress at break 5 mm/min MPa ISO 527-1,2 75 45 CTensile Stress at break 5 mm/min MPa ISO 527-1,2 0.7 1.2 CCharpy impact strength 23 °C kJ/m² ISO 179-1eU 9 9 Izod impact strength 23 °C kJ/m² ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 1.2 1.8 Thermal properties C C ISO 178-A 1.2 1.8 CTemperature 10 °C/min °C ISO 11357-1,-3 220 C CTemperature of 0 °C/min °C ISO 11357-1,-2 0.6 10 Vical softening temperature 50 N; 120 °C/h °C ISO 1359-1,-2 0.5 T Thermal conductivity, in-plane W(m-K) ISO 22007-4 2.5 T Thermal conductivity, in-plane W(m-K) <	Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
CTensile modulus 1 mm/min MPa ISO 527-1,-2 13100 6700 CTensile Stress at break 5 mm/min MPa ISO 527-1,-2 75 45 CTensile Strain at break 5 mm/min % ISO 527-1,-2 0.7 1.2 CCharpy impact strength 23 °C kJ/m² ISO 179-1eU 9 9 Izod impact strength 23 °C kJ/m² ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 1.2 1.8 Thermal properties 2 mm/min % ISO 178-A 1.2 1.8 CTemperature 10 °C/min °C ISO 178-A 1.2 1.8 Thermal properties C ISO 178-A 1.2 1.8 CTemperature 0 °C/min °C ISO 75-1,-2 160 Vicat softening temperature 50 N; 120 °C/h °C ISO 75-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4	Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
C Tensile Stress at break 5 mm/min MPa ISO 527-1,-2 75 45 C Tensile Strain at break 5 mm/min % ISO 527-1,-2 0.7 1.2 C Charpy impact strength 23 °C k.//m² ISO 179-16U 9 9 Izod impact strength 23 °C k.//m² ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 130 65 Flexural strength 2 mm/min % ISO 178-A 1.2 1.8 Thermal properties T Temmerature of deflection under load 1.80 MPa °C ISO 178-A 1.2 1.8 Coefficient of linear thermal expansion, parallel 210 °C/h °C ISO 11357-1,-3 220 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.5 Thermal conductivity, through-plane W/(m-K) ISO 22007-4 2.5	Mechanical properties (23 °C/50 % r. h.)					
C Tensile Strain at break 5 mm/min % ISO 527-1,-2 0.7 1.2 C Charpy impact strength 23 °C kJ/m² ISO 179-1eU 9 9 Izod impact strength 23 °C kJ/m² ISO 180-1U 10 10 Flexural modulus 2 mm/min MPa ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 130 65 Flexural strength 2 mm/min % ISO 178-A 1.2 1.8 Thermal properties C ISO 11357-1,-3 220 C C C ISO 11357-1,-2 160 Vicat softening temperature 10 °C/m °C ISO 306 212 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 C C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 22007-4 2.5 Thermal conductivity, through-plane W/(m-K)	C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	13100	6700
C Charpy impact strength 23 °C kJ/m² ISO 179-1eU 9 9 Izod impact strength 23 °C kJ/m² ISO 180-1U 10 10 Flexural modulus 2 mm/min MPa ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 130 65 Flexural strength 2 mm/min % ISO 178-A 1.2 1.8 Thermal properties	C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	75	45
Izod impact strength 23 °C kJ/m² ISO 180-1U 10 10 Flexural modulus 2 mm/min MPa ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 130 65 Flexural strength 2 mm/min % ISO 178-A 1.2 1.8 Thermal properties C ISO 178-A 1.2 1.8 Comparature of deflection under load 1.80 MPa °C ISO 75-1,-2 160 Vicat softening temperature 50 N; 120 °C/h °C ISO 306 212 Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 1 Thermal conductivity, through-plane W/(m-K) ISO 22007-4 1.3 CBurning behavior UL 94 0.75 mm Class UL 94 V-0 CBurning behavior UL 94-5V <t< td=""><td>C Tensile Strain at break</td><td>5 mm/min</td><td>%</td><td>ISO 527-1,-2</td><td>0.7</td><td>1.2</td></t<>	C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	0.7	1.2
Flexural modulus 2 mm/min MPa ISO 178-A 14200 6200 Flexural strength 2 mm/min MPa ISO 178-A 130 65 Flexural strain at flexural strength 2 mm/min MPa ISO 178-A 1.2 1.8 Thermal properties 10 °C/min °C ISO 178-A 1.2 1.8 Comperature of deflection under load 1.80 MPa °C ISO 306 212 Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-12 0.4 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 22007-4 2.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 1.3 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 Class UL 94 V-0 C Burning behavior UL 94-SV 1.5 mm Class UL 94 SVA COxygen index Method A % ISO 4589-2 100 Glow wire t	C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	9	9
Flexural strength 2 mm/min MPa ISO 178-A 130 65 Flexural strain at flexural strength 2 mm/min % ISO 178-A 1.2 1.8 Thermal properties 10 °C/min °C ISO 178-A 1.2 1.8 C memperature of deflection under load 1.80 MPa °C ISO 1357-1,-2 160 Vicat softening temperature 50 N: 120 °C/h °C ISO 306 212 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 22007-4 2.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 Thermal behavior UL 94 V-0 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 0.75 mm °C	Izod impact strength	23 °C	kJ/m²	ISO 180-1U	10	10
Flexural strain at flexural strength 2 mm/min % ISO 178-A 1.2 1.8 Thermal properties C ISO 11357-1,-3 220 CTemperature of deflection under load 1.80 MPa °C ISO 75-1,-2 160 Vicat softening temperature 50 N; 120 °C/h °C ISO 306 212 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 ⁻¹ /K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 ⁻¹ /K ISO 22007-4 2.5 Thermal conductivity, in-plane W/(m·K) ISO 22007-4 2.5 1.3 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm	Flexural modulus	2 mm/min	MPa	ISO 178-A	14200	6200
Thermal properties CMelting temperature 10 °C/min °C ISO 11357-1,-3 220 CTemperature of deflection under load 1.80 MPa °C ISO 306 212 Vicat softening temperature 50 N; 120 °C/h °C ISO 306 212 CCoefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 CCoefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 CCoefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 22007-4 2.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 Burning behavior UL 94 1.5 mm Class UL 94 V-0 CBurning behavior UL 94 0.75 mm Class UL 94 V-0 CBurning behavior UL 94 0.75 mm Class UL 94 V-0 CBurning behavior UL 94 0.75 mm °C IEC 60695-2:12 960 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2:12 960	Flexural strength	2 mm/min	MPa	ISO 178-A	130	65
CMelting temperature 10 °C/min °C ISO 11357-1,-3 220 CTemperature of deflection under load 1.80 MPa °C ISO 75-1,-2 160 Vicat softening temperature 50 N; 120 °C/h °C ISO 306 212 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 Thermal conductivity, through-plane W/(m-K) ISO 22007-4 1.3 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IE	Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	1.2	1.8
C Temperature of deflection under load 1.80 MPa °C ISO 75-1,-2 160 Vicat softening temperature 50 N; 120 °C/h °C ISO 306 212 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 °/K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 °/K ISO 11359-1,-2 0.5 Thermal conductivity, in-plane W/(m.K) ISO 22007-4 2.5 Thermal conductivity, through-plane W/(m.K) ISO 22007-4 1.3 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 0.75 mm °C <t< td=""><td>Thermal properties</td><td></td><td></td><td></td><td></td><td></td></t<>	Thermal properties					
Vicat softening temperature 50 N; 120 °C/h °C ISO 306 212 C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 ⁴ /K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 ⁴ /K ISO 11359-1,-2 0.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 Thermal conductivity, through-plane W/(m-K) ISO 22007-4 1.3 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94. 0.75 mm Class UL 94 SVA C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-13		10 °C/min	°C	ISO 11357-1,-3	220	
C Coefficient of linear thermal expansion, parallel 23 to 55 °C 10 ⁴ /K ISO 11359-1,-2 0.4 C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 ⁴ /K ISO 11359-1,-2 0.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 Thermal conductivity, in-plane W/(m-K) ISO 22007-4 1.3 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 SVA C Oxygen index Method A % ISO 4589-2 100	C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	160	
C Coefficient of linear thermal expansion, transverse 23 to 55 °C 10 ⁴ /K ISO 11359-1,-2 0.5 Thermal conductivity, in-plane W/(m·K) ISO 22007-4 2.5 Thermal conductivity, through-plane W/(m·K) ISO 22007-4 1.3 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 5VA C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 G	Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	212	
Thermal conductivity, in-plane W/(m-K) ISO 22007-4 2.5 Thermal conductivity, through-plane W/(m-K) ISO 22007-4 1.3 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 5VA C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0	C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.4	
Thermal conductivity, through-plane W/(m·K) ISO 22007-4 1.3 C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 5VA C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) C IEC 60695-2-13 800 C Relative permittivity	C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.5	
C Burning behavior UL 94 1.5 mm Class UL 94 V-0 C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 5VA C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) C IEC 60695-2-13 800 C Relative permittivity 100 Hz - IEC 60250 4.8 C Relative permittivity	Thermal conductivity, in-plane		W/(m·K)	ISO 22007-4	2.5	
C Burning behavior UL 94 0.75 mm Class UL 94 V-0 C Burning behavior UL 94-5V 1.5 mm Class UL 94 5VA C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Relative permittivity </td <td>Thermal conductivity, through-plane</td> <td></td> <td>W/(m·K)</td> <td>ISO 22007-4</td> <td>1.3</td> <td></td>	Thermal conductivity, through-plane		W/(m·K)	ISO 22007-4	1.3	
C Burning behavior UL 94-5V 1.5 mm Class UL 94 5VA C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) C IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Dissipation factor	C Burning behavior UL 94	1.5 mm	Class	UL 94	V-0	
C Oxygen index Method A % ISO 4589-2 100 Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) °C IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 140	C Burning behavior UL 94	0.75 mm	Class	UL 94	V-0	
Glow wire test (GWFI) 0.75 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) 3.0 mm °C IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Dissipation factor 100 Hz 10°4 IEC 60250 170 C Dissipation factor 1 MHz 10°4 IEC 60250 140	C Burning behavior UL 94-5V	1.5 mm	Class	UL 94	5VA	
Glow wire test (GWFI) 1.5 mm °C IEC 60695-2-12 960 Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) 3.0 mm °C IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 140	C Oxygen index	Method A	%	ISO 4589-2	100	
Glow wire test (GWFI) 3.0 mm °C IEC 60695-2-12 960 Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) 3.0 mm °C IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Relative permittivity 1 MHz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 140	Glow wire test (GWFI)	0.75 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWIT) 0.75 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) 3.0 mm °C IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Relative permittivity 1 MHz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 140	Glow wire test (GWFI)	1.5 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWIT) 1.5 mm °C IEC 60695-2-13 750 Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) 200 Hz - IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.4 C Relative permittivity 100 Hz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 140	Glow wire test (GWFI)	3.0 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWIT) 3.0 mm °C IEC 60695-2-13 800 Electrical properties (23 °C/50 % r. h.) IEC 60250 4.8 C Relative permittivity 100 Hz - IEC 60250 4.8 C Relative permittivity 1 MHz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 140	Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	750	
Electrical properties (23 °C/50 % r. h.) 100 Hz - IEC 60250 4.8 C Relative permittivity 1 MHz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 140	Glow wire test (GWIT)	1.5 mm	°C	IEC 60695-2-13	750	
C Relative permittivity 100 Hz - IEC 60250 4.8 C Relative permittivity 1 MHz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 140	Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	800	
C Relative permittivity 100 Hz - IEC 60250 4.8 C Relative permittivity 1 MHz - IEC 60250 4.4 C Dissipation factor 100 Hz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁴ IEC 60250 140	Electrical properties (23 °C/50 % r. h.)					
C Dissipation factor 100 Hz 10 ⁻⁴ IEC 60250 170 C Dissipation factor 1 MHz 10 ⁻⁴ IEC 60250 140	C Relative permittivity	100 Hz	-	IEC 60250	4.8	
C Dissipation factor 1 MHz 10 ⁻⁴ IEC 60250 140	C Relative permittivity	1 MHz	-	IEC 60250	4.4	
	C Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250	170	
C Volume resistivity Ohm-m IEC 60093 5.30E+13	C Dissipation factor	1 MHz	10-4	IEC 60250	140	
	C Volume resistivity		Ohm⋅m	IEC 60093	5.30E+13	





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Property	Test Condition	Unit	Standard	guide value d.a.m. cond.
C Surface resistivity		Ohm	IEC 60093	3.8E+15
C Electric strength	1 mm	kV/mm	IEC 60243-1	34
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Comparative tracking index CTI	Solution A	PLC	UL 746A	0
Other properties (23 °C)				
CWater absorption (Saturation value)	Water at 23 °C	%	ISO 62	3.2
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1
CDensity		kg/m³	ISO 1183	1730
Bulk density		kg/m³	ISO 60	800
Processing conditions for test specimens	·			
C Injection molding-Melt temperature		°C	ISO 294	280
C Injection molding-Mold temperature		°C	ISO 294	80
Processing recommendations				· ·
Drying temperature dry air dryer		°C	-	80
Drying time dry air dryer		h	-	2-6
Residual moisture content		%	Acc. to Karl Fischer	0.03-0.12
Melt temperature (Tmin - Tmax)		°C	-	260-290
Mold temperature		°C	-	80-100

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.



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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 coloring.

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.

Conditioning

Conditioning in accordance with ISO 1110 (70 °C; 62 % r.h.)

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