6F006I

REGION ASIA

DESCRIPTION

30% glass-reinforced, impact modified thermoplastic alloy. Improved toughness and ductility.

TYPICAL PROPERTY VALUES

Revision 20190828

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	97	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	91	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	4	%	ASTM D 638
Tensile Modulus, 5 mm/min	9750	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	150	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	138	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5370	MPa	ASTM D 790
Hardness, Rockwell R	109	-	ASTM D 785
Tensile Stress, yield, 5 mm/min	105	MPa	ISO 527
Tensile Stress, break, 5 mm/min	105	MPa	ISO 527
Tensile Modulus, 1 mm/min	8500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	154	MPa	ISO 178
Flexural Modulus, 2 mm/min	7750	MPa	ISO 178
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
IMPACT			
Izod Impact, unnotched, 23°C	640	J/m	ASTM D 4812
Izod Impact, notched, 23°C	170	J/m	ASTM D 256
Izod Impact, notched, -30°C	112	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	5	J	ASTM D 3763
Instrumented Impact Total Energy, 23°C	17	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	6	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	9	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	153	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	163	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	204	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	149	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.7E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.1E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.7E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.1E-04	1/°C	ISO 11359-2
CTE, 60°C to 138°C, flow	1.98E-05	1/°C	ASTM E 831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	148	°C	ISO 306
Vicat Softening Temp, Rate B/120	150	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	155	°C	ISO 75/Af
Relative Temp Index, Elec [1]	140	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	130	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	140	°C	UL 746B
PHYSICAL			
Specific Gravity	1.44	-	ASTM D 792
Specific Volume	0.7	cm³/g	ASTM D 792
Water Absorption, 24 hours	0.09	%	ASTM D 570
Mold Shrinkage, flow, 0.75-2.3 mm	0.3 – 0.4	%	SABIC method
Mold Shrinkage, flow, 2.3-4.6 mm	0.4 – 0.5	%	SABIC method
Mold Shrinkage, xflow, 0.75-2.3 mm	0.4 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 2.3-4.6 mm	0.7 – 0.9	%	SABIC method
Melt Flow Rate, 250°C/5.0 kgf	24	g/10 min	ASTM D 1238
Density	1.44	g/cm³	ASTM D 792
Water Absorption, (23°C/sat)	0.5	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 250°C/5.0 kg	12	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/5.0 kg	19	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	4.8E+15	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 3.2 mm	20	kV/mm	ASTM D 149
Dielectric Strength, in oil, 1.6 mm	27	kV/mm	IEC 60243-1
Relative Permittivity, 100 Hz	4	-	ASTM D 150
Relative Permittivity, 1 MHz	4	-	ASTM D 150
Dissipation Factor, 100 Hz	0.003	-	ASTM D 150
Dissipation Factor, 1 MHz	0.02	-	ASTM D 150
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 1	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D 495
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E207780-103938404	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	4 – 6	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 280	°C	
Nozzle Temperature	255 – 275	°C	
Front - Zone 3 Temperature	260 – 280	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Middle - Zone 2 Temperature	255 – 275	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.3 – 0.3	MPa	
Screw Speed	50 – 50	rpm	
Shot to Cylinder Size	50 – 80	%	
Vent Depth	0.013 – 0.02	mm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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