

Physical Properties	Metric	English	Comments
Bulk Density	0.500 - 0.800 g/cc	0.0181 - 0.0289 lb/in³	
Density	1.62 g/cc	0.0585 lb/in³	ISO 1183
Water Absorption	3.5 - 4.5 %	3.5 - 4.5 %	Saturation; ISO 62
Moisture Absorption at Equilibrium	0.40 - 0.80 %	0.40 - 0.80 %	23°C; 50% RH; ISO 62
Viscosity Measurement	135	135	ISO 307
Linear Mold Shrinkage	0.0029 cm/cm	0.0029 in/in	restricted
Linear Mold Shrinkage, Flow	0.0027 cm/cm	0.0027 in/in	TM=320°C, TW=100°C
	0.0030 cm/cm	0.0030 in/in	ISO 2577
Linear Mold Shrinkage, Transverse	0.0090 cm/cm	0.0090 in/in	ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	240 MPa	34800 psi	50 mm/min; ISO 527-1/-2
Elongation at Yield	2.3 %	2.3 %	50 mm/min; ISO 527-1/-2
Modulus of Elasticity	17.0 GPa	2470 ksi	ISO 527-1/-2
Izod Impact, Notched (ISO)	13.0 kJ/m² @Temperature 23.0 °C	6.19 ft-lb/in² @Temperature 73.4 °F	ISO 180/A
Charpy Impact Unnotched	8.50 J/cm² @Temperature -30.0 °C	40.4 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eU
	9.00 J/cm² @Temperature 23.0 °C	42.8 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	1.30 J/cm² @Temperature 23.0 °C	6.19 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eA

Mechanical Properties	Metric	English	Comments
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	50.0 - 90.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	27.8 - 50.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	DIN 11359-1/-2
	@Temperature 23.0 - 80.0 $^{\circ}\text{C}$	@Temperature 73.4 - 176 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	18.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	10.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	DIN 11359-1/-2
	@Temperature 23.0 - 80.0 $^{\circ}\text{C}$	@Temperature 73.4 - 176 $^{\circ}\text{F}$	
Specific Heat Capacity	1.00 J/g- $^{\circ}\text{C}$	0.239 BTU/lb- $^{\circ}\text{F}$	
Thermal Conductivity	0.320 W/m-K	2.22 BTU-in/hr-ft ² - $^{\circ}\text{F}$	DIN 52612
Melting Point	285 $^{\circ}\text{C}$	545 $^{\circ}\text{F}$	DIN 53765
Maximum Service Temperature, Air	145 $^{\circ}\text{C}$	293 $^{\circ}\text{F}$	for 50% loss of tensile strength after 20000hr
	170 $^{\circ}\text{C}$	338 $^{\circ}\text{F}$	for 50% loss of tensile strength after 5000hr
	260 $^{\circ}\text{C}$	500 $^{\circ}\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	245 $^{\circ}\text{C}$	473 $^{\circ}\text{F}$	ISO 75-1/-2
Decomposition Temperature	>= 350 $^{\circ}\text{C}$	>= 662 $^{\circ}\text{F}$	
Flammability, UL94	HB	HB	
	@Thickness 1.60 mm	@Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Dielectric Constant	4.7	4.7	IEC 60250
	@Frequency 1.00 Hz	@Frequency 1.00 Hz	
Dielectric Strength	33.0 kV/mm	838 kV/in	IEC 60243-1
Dissipation Factor	0.020	0.020	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	600 V	600 V	Test solution A; IEC 60112

Processing Properties	Metric	English	Comments
Processing Temperature	80.0 $^{\circ}\text{C}$	176 $^{\circ}\text{F}$	Hopper Throat

Zone 1 Processing Properties	300 °C Metric	572 °F English	Feed Zone Comments
Zone 2	310 °C	590 °F	Compression
Zone 3	320 °C	608 °F	Metering-zone
Zone 4	320 °C	608 °F	Nozzle
Melt Temperature	310 - 330 °C	590 - 626 °F	Injection-molding/Extrusion
	320 °C	608 °F	Optimal
Mold Temperature	80.0 - 120 °C	176 - 248 °F	Injection-molding
	100 °C	212 °F	Optimal
Drying Temperature	110 °C	230 °F	
Dry Time	8 hour	8 hour	
Moisture Content	<= 0.030 %	<= 0.030 %	Optimal
	<= 0.15 %	<= 0.15 %	

Descriptive Properties	Value	Comments
Color	BK 23215	
Commercial Status	Europe	
Ignition Temperature	>470°C	ASTM D1929
Peripheral screw speed	<0.3 m/s	

Contact Songhan Plastic Technology Co.,Ltd.