

# Lotte® BF-0677HF

Scratch resistant material that is used in TV housing and the exterior material for cleaner and air purifier  
Information provided by Samsung Cheil Industries.

Physical Properties	Metric	English	Comments
Specific Gravity	1.13 g/cc	1.13 g/cc	ASTM D792
Linear Mold Shrinkage, Flow	0.0040 cm/cm @Thickness 3.20 mm	0.0040 in/in @Thickness 0.126 in	ASTM D955
Linear Mold Shrinkage, Transverse	0.0050 cm/cm @Thickness 3.20 mm	0.0050 in/in @Thickness 0.126 in	ASTM D955
Melt Flow	19 g/10 min @Load 10.0 kg, Temperature 220 °C	19 g/10 min @Load 22.0 lb, Temperature 428 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	114	114	ASTM D785
Tensile Strength at Break	29.4 MPa	4260 psi	5 mm/min; ASTM D638
Tensile Strength, Yield	47.1 MPa	6830 psi	5 mm/min; ASTM D638
Elongation at Break	15 %	15 %	5 mm/min; ASTM D638
Tensile Modulus	2.39 GPa	347 ksi	5 mm/min; ASTM D638
Flexural Strength	68.6 MPa	9950 psi	2.8 mm/min; ASTM D790
Flexural Modulus	2.45 GPa	356 ksi	2.8 mm/min; ASTM D790
Izod Impact, Notched	0.883 J/cm @Thickness 6.35 mm	1.65 ft-lb/in @Thickness 0.250 in	ASTM D256
	1.18 J/cm @Thickness 3.17 mm	2.20 ft-lb/in @Thickness 0.125 in	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	93.0 °C @Thickness 6.40 mm	199 °F @Thickness 0.252 in	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	84.0 °C @Thickness 6.40 mm	183 °F @Thickness 0.252 in	ASTM D648
Vicat Softening Point	96.0 °C	205 °F	B/50; ISO R306
	99.0 °C	210 °F	B/120; ISO R306
Flammability, UL94	HB @Thickness 1.50 - 3.00 mm	HB @Thickness 0.0591 - 0.118 in	
Descriptive Properties			
Pencil Hardness		HB	500g, JIS K 5401