



## **SUMIKAEXCEL 3601GL20**

		Method	Unit	3601GL20
Color				Natural, Black
Filler		-		GF
Glass fiber type		-		Chopped
Filler content		-	%	20
Physical property				
Specific gravity		ASTM D792		1.51
Mold shrinkage	MD	Sumitomo Original*1	%	0.30
	TD		%	0.40
Mechanical property				
Tensile	strength	ASTM D638	MPa	124
	elongation		%	3.0
	strength	ISO 527	MPa	-
	modulus		GPa	-
	elongation		%	-
Flexural	strength	ASTM D790	MPa	172
	modules		GPa	6.0
	strength	ISO 178	MPa	-
	modulus		GPa	-
Izod impact strength	non-notched	D256	J/m	431
	notched	D256	J/m	80
Charpy impact strength		ISO 179	J/m	-
Non-notched				-
Rockwell strength			R scale	134
Thermal property				
TDUL		ASTM D648	deg C	210
1.82MPa for ASTM/1.80MPa for ISO		ISO 75	deg C	-
Liner expansion coefficient	MD	Sumitomo Original <sup>*2</sup>	×10 <sup>-5</sup> /deg C	2.6
50 - 250℃	TD			4.8
Dielectric constant		ASTM D150	1MHz	-
			1GHz	_
Dielectric tangent			1MHz	-
			1GHz	-
Dielectric breakdown voltage		Short time method	kV/mm	-
Specific volume resistance		ASTM D257	Ωm	10 <sup>14</sup>

Arc resistance	ASTM D495	sec.	120 to 180		
Tracking resistance	IEC method	V	-		
Flammability					
Flame retardency	UL 94		V-0 at 0.43mmt		
Limited Oxygen Index	JIS K 7201		-		

## <Note>

All the data above are just for reference, not intended for any guarantee on the product.

- \*1: The tool of 64mm X 64mm X 3mmt was used to determine mold shrinkages.
- \*2: The highest temperature at which dumbbell shaped test pieces of 1.2mmt does not deform after immersing in a solder bath for 60 seconds.
- \*3: The center part of the test piece for tensile property was used.

Standard molding conditions					
Pre-drying		deg C for hours	50 to 180 deg C for 5 to 24 hou		
Cylinder temperature	Nozzle	deg C	330 to 380		
	Front	deg C	330 to 380		
	Middle	deg C	320 to 370		
	Rear	deg C	300 to 340		
Tool (Mold) temperature		deg C	120 to 180		
Injection velocity		-	Low to Middle		
Injection pressure		MPa	100 to 200		
Holding pressure		MPa	50 to 100		
Back pressure		MPa	5 to 10		
Screw rotation		rpm	50 to 100		