



## SUMIKAEXCEL 4101GL20

		Method	Unit	4101GL20
Color				Natural
Filler		-		GF
Glass fiber type		-		Chopped
Filler content		-	%	20
<b>Physical property</b>				
Specific gravity		ASTM D792		1.51
Mold shrinkage	MD	Sumitomo Original*1	%	0.30
	TD		%	0.40
<b>Mechanical property</b>				
Tensile	strength	ASTM D638	MPa	124
	elongation		%	3.0
	strength	ISO 527	MPa	-
	modulus		GPa	-
	elongation		%	-
	strength	ASTM D790	MPa	172
Flexural	modules		GPa	6.0
	strength	ISO 178	MPa	-
	modulus		GPa	-
	strength	D256	J/m	431
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
<b>Thermal property</b>				
TDUL		ASTM D648	deg C	210
1.82MPa for ASTM/1.80MPa for ISO		ISO 75	deg C	-
Liner expansion coefficient	MD	Sumitomo Original*2	$\times 10^{-5}/\text{deg C}$	2.6
	50 - 250°C	TD		4.8
<b>Electrical property</b>				
Dielectric constant		ASTM D150	1MHz	-
			1GHz	-
Dielectric tangent			1MHz	-
			1GHz	-
Dielectric breakdown voltage		Short time method	kV/mm	-
Specific volume resistance		ASTM D257	$\Omega\text{m}$	$10^{14}$

Arc resistance	ASTM D495	sec.	120 to 180
Tracking resistance	IEC method	V	-
<b>Flammability</b>			
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.

<b>Standard molding conditions</b>			
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