





## **Z-650 BLACK**

■ Product Summary: Z-650 BLACK is a glass fiber and mineral filled super tough PPS compound with excellent impact, thermal shock, hot water resistance and improved dimensional stability.

■ Color: Black

**Engineering Properties** 

Properties	Test Method	Unit	Typical value
General Information			GF/Filler Super Tough
Physical			
Density	ISO 1183-1	g/cm³	1.73
Water absorption, 23°C /24hrs.	ISO 62	%	0.02
Mold shrinkage <sup>a</sup>	ISO 294-4	%	0.3/0.7
Mechanical			
Tensile strength	ISO 527-1,2	MPa	175
Tensile modulus	ISO 527-1,2	GPa	16.5
Tensile strain at break	ISO 527-1,2	%	1.6
Flexural strength	ISO 178	MPa	275
Flexural modulus	ISO 178	GPa	16.0
Flexural strain at flexural strength	ISO 178	%	1.9
Charpy impact strength,			
notched	ISO 179/1eA	kJ/m²	9
unnotched	ISO 179/1eU	kJ/m²	50
Co-eff. of friction b, static/dynamic	-	-	-
Thermal			
Temperature of deflection under load, 1.80MPa	ISO 75-1,2	°C	270
Co-eff. of linear thermal expansion a, -50~50 °C	ISO 11359-2	x 10 <sup>-5</sup> /K	1.5/4.0
Co-eff. of linear thermal expansion a, 100~200 °C Flammability c/thickness (mm)	ISO 11359-2	x 10 <sup>-5</sup> /K	1.5/9.0
	UL-94	-	V-0 equivalent/1.5
Electrical			
Electric strength, t=1.0mm	IEC 60243-1	kV/mm	23
Relative permittivity, 1MHz	IEC 62631-2-1	-	5
Dielectric dissipation factor, 1MHz	IEC 62631-2-1	-	0.005
Comparative Tracking Index (CTI)	IEC 60112	V	175
Volume resistivity	IEC 62631-3-1	Ω·cm	10 <sup>16</sup>
Molding Condition			
Cylinder temperature	-	°C	290-320
Mold temperature	-	°C	130-150

a: Flow direction/Transverse direction

## **DIC** Corporation

Please refer to Safety Data Sheet for safety precautions prior to use. The information contained in this data sheet is based on tests or research DIC Corporation ('DIC') believes to be reliable, but no warranty is given by DIC concerning the accuracy or completeness thereof. The supply of the information does not release the recipient from the obligation to test the products as to their suitability for the intended applications and processes. DIC has no liability for any consequence of the application, processing or use of the information or the products. Information concerning the application of the products is not and should not be construed as a warranty as to non-infringement of intellectual property for a particular application.

b: P=150kPa, V=0.3m/s, PPS vs. carbon steel

c: Own data