

# FZL-4033

- **Out line: FZL-4033 is a glass fiber and poly tetra fluoro ethylene filled PPS compound which provides low friction and wear resistance.**
- **Color: Black and Natural (Brown)**

## Engineering Properties of FZL-4033

Properties	Test Method	Unit	FZL-4033
General Information			GF30% & PTFE Lubricant
<ASTM>			
<b>Physical</b>			
Specific gravity	D-792	-	1.68
Water absorption, 23deg. /24Hrs. /in water	D-570	Wt. %	0.02
Mold shrinkage, MD /TD <sup>a</sup>	D-955	%	0.25/1.2
<b>Mechanical</b>			
Tensile strength	D-638	MPa	150
Tensile modulus	D-638	MPa	10000
Tensile elongation at break	D-638	%	1.6
Poisson's ratio	-	-	0.36
Flexural strength	D-790	MPa	230
Flexural modulus	D-790	MPa	9000
Flexural elongation at break	D-790	%	2.1
Izod impact strength notched / un notched	D-256	J/m	75/400
Compressive strength	D-695	MPa	180
Rockwell hardness, R/M	D-785	-	118/98
Coefficient of friction <sup>b</sup> , static /dynamic	-	-	0.22/0.22
<b>Thermal</b>			
Distortion temp. of under load, 1.82MPa	D-648	°C	265
Coefficient of thermal expansion <sup>c</sup> , -30 to 90°C	D-696	m/mK	2.3x10 <sup>-5</sup>
UL Flammability <sup>d</sup> , t~0.8mm	UL-94	-	V-0
<b>Electrical</b>			
Dielectric strength, t=1.6mm	D-149	kv/mm	16
Dielectric constant, 1MHz	D-150	-	4
Dissipation factor, 1MHz	D-150	-	0.002
Comparative tracking index (CTI)	D-3638	Volt	-
Arc resistance	D-495	sec.	-
Volume resistibility	D-257	Ohm.cm	10 <sup>16</sup>
<b>Process Conditions</b>			
Cylinder temperature	-	°C	290-320
Mold temperature	-	°C	120-150

a: MD; Mold direction, TD; Transverse direction, b: P=150KPa, V=0.3m/s, PPS vs. carbon steel,  
c: Average value of MD & TD, d: UL file No. E53829



★Please refer to Material 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.