

Z-240 Series

■ **Outline: Z-240 series products are 40% glass fiber reinforced super tough PPS compounds which provide excellent impact, thermal shock and hot water resistances**

	Method	Unit	Z-240	Z-240-DS
General Information			Super Tough High Strength	Super Tough High Flow
Physical Properties				
Specific gravity	ISO 1183/A	g/cm ³	1.64	1.66
Mold shrinkage (parallel) ^a	ISO 294-4	%	0.4	0.4
Mold shrinkage (transverse) ^a	ISO 294-4	%	0.7	0.7
Water absorption (23°C, sat.)	ISO 62	Wt.%	0.02	0.02
Mechanical Properties				
Tensile strength	ISO 527-1, -2	MPa	155	165
Tensile modulus	ISO 527-1, -2	MPa	13000	13500
Tensile elongation at break	ISO 527-1, -2	%	2.2	2.1
Flexural strength	ISO 178	MPa	260	270
Flexural modulus	ISO 178	MPa	11500	12000
Flexural elongation at break	ISO 178	%	2.6	2.5
Charpy impact strength	ISO 179/1eU	kJ/m ²	60	50
Charpy notched impact strength	ISO 179/1eA	kJ/m ²	15	13
Unnotched impact strength (Izod)	ISO 180/A	kJ/m ²	55	47
Notched impact strength (Izod)	ISO 180/A	kJ/m ²	13	10
Rockwell hardness	ISO 2039/2	M-Scale	-	-
Thermal Properties				
Melting temperature	ISO 11357	°C	280	280
Glass transition temperature (10 K/min)	ISO 11357	°C	90	90
Deflection temperature (1.82 MPa)	ISO 75-1, -2 /A	°C	260	260
Coefficient of thermal expansion	ISO 11359-1, -2	m/mK	2.3x10 ⁻⁵	2.3x10 ⁻⁵
Flammability* (at thickness h)	UL-94	class	V-0 ^b	V-0 ^b
Tested thickness (h)	UL-94	mm	1.5	1.5
Electrical Properties				
Dielectric strength (t=1.6mm)	IEC 60243-1	kV/mm	16	16
Dielectric constant, 1MHz	IEC 60250	-	5	5
Dissipation factor, 1MHz	IEC 60250	-	0.005	0.005
Volume resistivity	IEC 60093	Ohm*cm	10 ¹⁶	10 ¹⁶
Comparative tracking index (CTI)	IEC 60112	Volt	-	-
Arc resistance	ASTM D495	sec.	-	-
Processing Conditions				
Cylinder temperature		°C	290-320	290-320
Mold temperature		°C	120-150	120-150

*UL file No. E53829

*a) Measured by rectangle type specimen with film gate, GF was orientated with following mold flow completely

*b) Own data

