PEEK

ALLPLASTICS
ENGINEERING PTY LTD

Technical Information:

Information to be used as a guide only. It corresponds with our current knowledge and indicates possible applications. We cannot guarantee suitability for a specific application. Unless otherwise stated these values represent averages taken from injection moulded samples.

Properties	Unit	Test Method DIN ASTM	Result
MECHANICAL	-	-	-
Density	g/cm³	53479	1.32
Tensile strength at yield	MPa	53455	92
Tensile strength at break	MPa	53455	-
Elongation at Break	%	53455	50
Modulus of elasticity in tension	MPa	53457	3600
Modulus of elasticity in flexure	MPa	53457	4100
Ball indentation hardness	MPa	53456	
Impact strength (Charpy)	KJ/m²	53453	no break
Creep rupture strength after 1000 hours with static load	MPa	-	-
Time yield limit for 1% elongation after 1000 hours	MPa	-	-
Coefficient of friction against hardened and ground steel p+0,05 N/mm2, v=0,6 m/s	-	-	0.3-0.38
Wear conditions as above	µm/km	-	-
THERMAL	-	-	-
Crystalline melting point	ºC	53736	334
Glass transition temperature	ºC	53736	143
Heat distortion temperature method A	ºC	ISO 75	140
Heat distortion temperature method B	ºC	ISO 75	182
Max. service temperature short term	ºC	-	300
Max. service temperature long term	ºC	-	250
Coefficient of thermal conductivity	W/(m K)	-	0.25
Specific heat	J/(g K)	-	0.32
Coefficient of thermal expansion	10-5/K	-	4.7
ELECTRICAL	-	-	-
Dielectric constant at 10 (5) Hz	-	53483	3.2-3.3
Dielectric loss factor at 10(5) Hz	-	53483	0.003-0.004
Specific Volume Resistance	Ωcm	53482	4.9 x10 (16)
Surface Resistance	O	53482	-
Dielectric strength 1mm	kV/mm	53481	20
Tracking resistance	-	53480	-
MISCELLANEOUS	-	-	-

Moisture Absorption: Equilibrium in standard atmosphere (23ºC / 50% relative humidity)	%	53714	0.1
Water absorption at saturation at 23ºC	%	53495	0.5
Resistance to hot water, washing soda	-	-	not resistant
Flamability	-	UL 94	VO
Resistance to weathering	-	-	Not resistant

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