

PEEK_MOD | HIGH QUALITY MATERIALS

► Main features

It has thermal and mechanical characteristics and properties similar to natural PEEK. It's made of Natural Peek + % Carbon fiber + Teflon + Graphite; this composition ensures excellent sliding performance with friction and, In addition, it raises the operating temperature to 260 C. It has a lower coefficient of linear thermal expansion to 23 C and lower coefficient of friction.

► Applications

Bearings
Blades
Spacers
Structural components
Gears and mechanics details in general

► Application sectors

Power Plant, Offshore, Oil & Gas
Medical and Pharmaceutical
Chemical
Aerospace
Electric and of Semiconductors
Industrial automation
Mechanic

► FDA Compatibility NO

► Available colours



PHYSICAL PROPERTIES

REGULATIONS

UM

PEEK

PHYSICAL PROPERTIES			
Density	DIN53479	g/cm ³	1.48
Water absorption (50% at 23° C)	**DIN53495	%	0.1
Maximum temp. for use in the air for short duration	-	°C	300
Maximum temperature of use in continuous air	-	°C	260
Minimum temperature of use in continuous air	-	°C	-40

MECHANICAL PROPERTIES			
Yield stress/tensile strength (σ_s)	ISO527	N/mm ²	84
Elongation at break (ϵ_s)	DIN53455	%	4
Breaking load (σ_r)	DIN53455	N/mm ²	118
Elongation at break (ϵ_r)	ISO527	%	3
Impact resistance	*DIN53453	kJ/m ²	25
Impact resistance, notched test	ISO179	kJ/m ²	5
Rockwell hardness	DIN53465	Scala M	M85
Compression test, load 1% deform. nominal	*DIN53454 ⁽³⁾	N/mm ²	150
Elasticity module	*DIN53457 ⁽⁵⁾	N/mm ²	5900

THERMIC PROPERTIES			
Melting temperature	-	°C	340
VICAT softening temperature	DIN53460	°C	-
Deformation temperature under bending load	DIN53461	°C	277
Coefficient of linear thermal expansion (α)	DIN53752	K ⁻¹ X10 ⁻⁴	0.30
Thermal conductivity at 23°	DIN52612	W/(Kxm)	0.24

ELECTRICAL PROPERTIES			
Volume resistivity	**DIN53482	Ω /cm	10 ⁷ · 10 ¹²
Surface resistivity	**DIN53482	Ω	10 ⁴ · 10 ¹²
Dielectric constant at 10 ³ HZ (on thickness of 1 mm.)	**DIN53483	-	-
Dielectric dissipation factor (tan δ) a 10 ³ HZ	**DIN53483	-	-
Dielectric strength (on thickness of 1 mm.)	**DIN53481	kV/mm	24
Electrical leakage resistivity	112/030TI	-	-

OTHER PROPERTIES			
Possibility of gluing	-	-	Limitata
Absence of physiological risks	FDA	-	No
Dry friction coefficient on steel	DIN53375	-	0.11
Flammability	UL94	-	V-O
UV stability	-	-	Si

* : MEASUREMENTS ON TEST TUBES IN ANHYDROUS STATE

** : MEASUREMENTS ON EQUILIBRIUM TUBES WITH U.R. 50% AT A TEMPERATURE OF 23° C

(3): ON CYLINDERS Ø 12X30 MM

(5): TRACTION SPEED 1 MM / MIN

(4): TRACTION SPEED 5 MM/MIN

(6): TRACTION SPEED 20 MM/MIN