

► Main features

The material has excellent mechanical, thermal and electrical performance. It has excellent creep resistance in a wide temperature range. Its resistance to hydrolysis is very good, as well as dimensional stability.

► Applications

Structural components
Coils
Insulating elements

► Application sectors

Electric and of
Semiconductors
Aerospace
Medical and
Pharmaceutical
Food



► FDA Compatibility YES

► Available colours



PHYSICAL PROPERTIES

REGULATIONS

UM

PEI

PHYSICAL PROPERTIES		REGULATIONS	UM	PEI
Density	DIN53479	g/cm ³	1.27	
Water absorption (50% at 23° C)	**DIN53495	%	0.25	
Maximum temp. for use in the air for short duration	-	°C	210	
Maximum temperature of use in continuous air	-	°C	170	
Minimum temperature of use in continuous air	-	°C	-50	

MECHANICAL PROPERTIES

REGULATIONS

UM

PEI

Yield stress/tensile strength (σ_s)	ISO 527	N/mm ²	110
Elongation at break (ϵ_s)	ISO 527	%	12
Breaking load (σ_r)	DIN53455	N/mm ²	90
Elongation at break (ϵ_r)	*DIN53455 ⁽⁴⁾	%	60
Impact resistance	*DIN53453	kJ/m ²	NR
Impact resistance, notched test	*DIN53453	kJ/m ²	4
Rockwell hardness	DIN53465	Scala M	M109
Compression test, load 1% deform. nominal	*DIN53454 ⁽³⁾	N/mm ²	130
Elasticity module	*DIN53457 ⁽⁵⁾	N/mm ²	3300

THERMIC PROPERTIES

REGULATIONS

UM

PEI

Melting temperature	-	°C	215
VICAT softening temperature	DIN53460	°C	-
Deformation temperature under bending load	DIN53461	°C	190
Coefficient of linear thermal expansion (α)	DIN53752	K ⁻¹ X10 ⁻⁴	0.56
Thermal conductivity at 23°	DIN52612	W/(Kxm)	0.22

ELECTRICAL PROPERTIES

REGULATIONS

UM

PEI

Volume resistivity	**DIN53482	Ω/cm	6x10 ¹⁴
Surface resistivity	**DIN53482	Ω	3.7x10 ¹⁴
Dielectric constant at 10 ³ HZ (on thickness of 1 mm.)	**DIN53483	-	3.15
Dielectric dissipation factor ($\tan \delta$) a 10 ³ HZ	**DIN53483	-	0.0013
Dielectric strength (on thickness of 1 mm.)	**DIN53481	kV/mm	33
Electrical leakage resistivity	112/030TI	-	CTI175

OTHER PROPERTIES

REGULATIONS

UM

PEI

Possibility of gluing	-	-	Yes
Absence of physiological risks	FDA	-	Yes
Dry friction coefficient on steel	DIN53375	-	-
Flammability	UL94	-	V-0
UV stability	-	-	Yes

* : MEASUREMENTS ON TEST TUBES IN ANHYDROUS STATE

(3): ON CYLINDERS Ø 12X30 MM
(5): TRACTION SPEED 1 MM / MIN

(4): TRACTION SPEED 5 MM/MIN
(6): TRACTION SPEED 20 MM/MIN