

## 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			
Density	DIN53479	g/cm <sup>3</sup>	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			
Yield stress/tensile strength ( $\sigma_s$ )	ISO 527	N/mm <sup>2</sup>	110
Elongation at break ( $\epsilon_s$ )	ISO 527	%	12
Breaking load ( $\sigma_r$ )	DIN53455	N/mm <sup>2</sup>	90
Elongation at break ( $\epsilon_r$ )	*DIN53455 (4)	%	60
Impact resistance	*DIN53453	kJ/m <sup>2</sup>	NR
Impact resistance, notched test	*DIN53453	kJ/m <sup>2</sup>	4
Rockwell hardness	DIN53465	Scala M	M109
Compression test, load 1% deform. nominal	*DIN53454 (3)	N/mm <sup>2</sup>	130
Elasticity module	*DIN53457 (5)	N/mm <sup>2</sup>	3300

THERMIC PROPERTIES			
Melting temperature	-	°C	215
VICAT softening temperature	DIN53460	°C	-
Deformation temperature under bending load	DIN53461	°C	190
Coefficient of linear thermal expansion ( $\alpha$ )	DIN53752	K <sup>-1</sup> X10 <sup>-4</sup>	0.56
Thermal conductivity at 23°	DIN52612	W/(Kxm)	0.22

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

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

\* : MEASUREMENTS ON TEST TUBES IN ANHYDROUS STATE

(3): ON CYLINDERS Ø 12X30 MM

(4): TRACTION SPEED 5 MM/MIN

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

(5): TRACTION SPEED 1 MM / MIN

(6): TRACTION SPEED 20 MM/MIN