



TYNACETAL-C NATURAL

GENERAL

Density	1.39 g/cm ³	ISO 1183	DIN 53479
Water absorption in air 50% r.h.	0.2 %	ISO 62	DIN 53715
Absorption 23-C in water-saturation	0.65 %	ISO 62	DIN 53495
Food Compliance – Yes		FDA / BfR	
UV Stability - No			

MECHANICAL PROPERTIES

Tensile stress at yield at break	63 N/mm ²	ISO 527	DIN53455
Elongation at break	31 %	ISO 527	DIN53455
Tensile Modulus of elasticity	2600 N/mm ²	ISO 527	DIN53455
Compression test 1% strain 1000h	N.A.	ISO 899	DIN53444
Impact strength Charpy 7,5 J	No break	ISO R179	DIN53453
Notched impact strength Charpy	6 KJ/ mm ²	ISO179/3C	DIN53453
Ball indentation hardness	125 N/mm ²	ISO2039.1	DIN53456
Rockwell hardness	M88	ISO2039.2	DIN53456
Coefficient of friction to steel [12]	0.35	ISO 8295	DIN 53375

THERMAL PROPERTIES

Melting point	165 °C	ISO 3146	
Thermal conductivity	0,3 W/(km)	ISO 22007.2	DIN 52612
Deformation at temperature HDT [15]	95 °C	ISO75	DIN 53461
Linear expansion coefficient 23-60°C	120 x 10 ⁻⁶ K ⁻¹	ISO 11359	DIN 53752
Operating temperature continuously [17]	100 °C		
Operating temperature short period-no load [18]	140 °C		
Minimum operating temperature [19]	-50 °C		
Flammability UL 94 (3-6 mm thickness)	HB		UL94
Oxygen index (LOI)	15 %	ISO4589	DIN 22117

ELECTRICAL PROPERTIES

Dielectric constant at 1 MHz	3.8	ISO 250	DIN 53483
Dielectric strength	40 KV/mm	ISO 243	DIN 53481
Volume resistivity	10 ¹⁵ Ωcm	ISO 93	DIN 53482
Dissipation factor tan Δ at 1 MHz	0.005	ISO 250	DIN 53483

Characteristics:

- Excellent Mechanical Properties
- High Wear Resistance
- Excellent Dimensional Stability
- Low Co-efficient Of Friction
- Zero Moisture Absorption

Applications:

- High Tolerance Gears
- Precision Guides & Rails
- Conveyor Rollers
- Electrical Insulators
- Bearings

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