



TRADING PRODUCTS SOLUTIONS S.A.

DATA SHEET

LINNOTAM

Short description of Material:

LINNOTAM is produced by direct polymerisation in moulds and has a partially crystalline structure. The high crystallinity gives it excellent mechanical properties such as high abrasion, high wear resistance as well as good hardness and stiffness.

Application examples:

- Sheaves
- Castors
- Gears
- Bearings
- Wear strips & -plates
- Guide strips

Colours: black, blue, natural

Mechanical values		Dry / Humid	
Density	ISO 1183	1,15	g/cm ³
Yield stress	ISO 527	80 / 60	MPa
Elongation due to tearing	ISO 527	40 / 100	%
Modulus of elasticity resulting from tensile test	ISO 527	3.100 / 1.800	MPa
Modulus of elasticity resulting from bending test	ISO 178	3.400 / 2.000	MPa
Flexural strength	ISO 178	140 / 60	MPa
Impact strength ¹⁾	ISO 179	o.B. / w.b.	KJ/m ²
Notched-bar impact strength	ISO 179	>4 / >15	KJ/m ²
Ball indentation hardness H _{358/30}	ISO 2039-1	160 / 125	MPa
Creep rate stress at 1% elongation ²⁾	DIN 53 444	>7	MPa
Sliding friction coefficient against steel (dry running) ³⁾	-	0,36 / 0,42	-
Sliding wear against steel (dry running) ³⁾	-	0,1	µm/km
Thermal values			
Melting temperature	ISO 3146	+220	°C
Thermal conductivity	DIN 52 612	0,23	W/(K*m)
Specific thermal capacity	-	1,7	J/(g*K)
Coefficient of thermal expansion ⁴⁾	-	7-8	10 ⁻⁵ *K ⁻¹
Operating temperature range (longterm) ⁵⁾	-	-40 / +105	°C
Operating temperature range(short-term) ⁵⁾	-	+170	°C
Fire behaviour	UL 94	HB	-
Electrical values			
Dielectric constant ⁶⁾	IEC 250	3,7 / -	-
Dielectric loss factor ⁶⁾	IEC 250	0,03 / -	-
Specific volume resistance	IEC 93	10 ¹⁵ / 10 ¹²	Ω
Surface resistance	IEC 93	10 ¹³ / 10 ¹²	Ω*cm
Dielectric strength	IEC 243	50 / 20	KV/mm
Creep current resistance	IEC 112	CTI 600	-
Miscellaneous data			
Moisture absorption in normal climate until saturated	DIN 53 715	2,2	%
Water absorption until saturated	ISO 62	6,5	%

¹⁾ Measured with a pendulum impact testing machine 0,1 DIN 51 222

²⁾ Tension resulting in 1% total elongation after 1.000h

³⁾ Against steel, hardened and ground

P = 0,05 Mpa; V = 0,6m/s; t = 60 °C near running surface

⁴⁾ For a temperature range of +23 °C up to +60 °C

⁵⁾ Experience values established with finished parts that are not under any stress in heated air, depending on the type and form of heat exposure, short-term = max. 1 h, long-term = months

⁶⁾ at 10⁶ Hz

w.b. = without breakage

1 Mpa = 1 N/mm²

1 g/cm³ = 1.000kg/m³

1 kV/mm = 1 MV/m