

Short description of Material:

A partially crystalline thermoplastics with high stiffness and very good chemical resistance. PP-H has a very low density compared to other plastics and is therefore an excellent insulator. PP-H is not suitable for sliding applications due to its wear rate.

Application examples:

- pump parts
- fittings
- valve bodies
- punching plates
- construction parts in chemical equipment

Colours: natural (white), grey (≈ RAL 7032)

Mechanical values

		dry	
Density	ISO 1183	0,91	g/cm ³
Yield stress	ISO 527	32	MPa
Elongation due to tearing	ISO 527	70	%
Modulus of elasticity resulting from tensile test	ISO 527	1.400	MPa
Modulus of elasticity resulting from bending test	ISO 178	1.400	MPa
Flexural strength	ISO 178	45	MPa
Impact strength ¹⁾	ISO 179	o.B.	kJ/m ²
Notched-bar impact strength	ISO 179	7	kJ/m ²
Ball indentation hardness H _{358/30}	ISO 2039-1	70	MPa
Creep rate stress at 1% elongation ²⁾	DIN 53 444	4	MPa
Sliding friction coefficient against steel (dry running) ³⁾	—	0,35	—
Sliding wear against steel (dry running) ³⁾	—	11,0	µm/km

Thermal values

Melting temperature	ISO 3146	+ 162	°C
Thermal conductivity	DIN 52 612	0,22	W/(K·m)
Specific thermal capacity	—	1,7	J/(g·K)
Coefficient of linear expansion ⁴⁾	—	16	10 ⁻⁵ ·K ⁻¹
Operating temperature range (long-term) ⁵⁾	—	0 / + 80	°C
Operating temperature range (short-term) ⁵⁾	—	+ 100	°C
Fire behaviour	UL 94	HB	—

Electrical values

Dielectric constant ⁶⁾	IEC 250	2,25	—
Dielectric loss factor ⁶⁾	IEC 250	0,00033	—
Specific volume resistance	IEC 93	> 10 ¹⁶	Ω·cm
Surface resistance	IEC 93	10 ¹⁴	Ω
Dielectric strength	IEC 243	52	KV/mm
Creep current resistance	IEC 112	KA 3c	—

Miscellaneous data

Moisture absorption in normal climate until saturated	DIN 53 715	< 0,01	%
Water absorption until saturated	ISO 62	< 0,01	%

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

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

³⁾: against steel, hardened and ground, P = 0,05 MPa, V = 0,6 m/s, t = 60 °C near running surface

⁴⁾: For a temperature range of + 23 °C 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 = 1.000 kg/m³
 1 kV/mm = 1 MV/m

Licharz GmbH

Industriepark Nord 15

D - 53567 Buchholz/Germany

Phone: ++49 / (0) 26 83 / 9 77 -0

Fax: ++49 / (0) 26 83 / 9 77 -111

Internet: www.licharz.de

E-Mail: info@licharz.de