

HabiPLAST™ Material Data Sheet

PE05 for tracks and machined parts



Material description

- Low friction High Molecular Weight Polyethylene (PE-HMW)
- Moderate wear rate with POM, PP, PA belts or chains
- Good damping properties
- Resistant against cleaning agents typically used in food applications
- Not resistant against UV-Light

コード	Property
PE05-C	

Material properties

General	Nominal value
Code	PE05-C
Color	blue
Density	~0.95 g/cm ³
Average molecular weight	0.5 • 10 ⁶ g/mol
Water absorption	< 0.01 %
Thermal	Nominal value
Temperature range	-70°C to +65°C
Coeff. of linear thermal expansion a	0.20 mm/(m•K)
Electrical	Nominal value
Volume resistivity	10 ¹⁴ Ohm•cm
Surface resistivity	10 ¹³ Ohm
Mechanical	Nominal value
Tensile strength (ultimate)	~27 Mpa
Tensile elongation (break)	≥200%
Charpy notched impact resistance	≥25 mJ/mm ²
Ball hardness	~45 MPa

Coefficient of friction and wear rate

Belt / Chain	Friction (-) ⁽¹⁾
HabasitLINK® POM	0.23
HabasitLINK® PP	0.23
HabasitLINK® PA	0.31
HabaCHAIN® DP	0.26
HabaCHAIN® LF	0.22
HabaCHAIN® PT	0.25
HabaCHAIN® TS	0.22
HabaCHAIN® NG	0.24
Stainless Steel	0.27

⁽¹⁾ measured on a test conveyor with 1500 kg/m² load, speed range 5 – 15 m/min, test distance 800 km, standard conditions

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Habasit support for design and calculation

To assist the layout and calculation of Habasit plastic modular belt conveyors, Habasit provides additional documentation and instruments on request.

- Engineering Guide with further complementary details to the design and calculation of conveyors.
- Calculation Program to analyze the dimensioning and acting forces of a planned conveyor design.

For further information or additional documentation please contact Habasit.

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