

HabiPLAST™ Material Data Sheet

TriboPlus TP40+FE, food contact approved, electrically conductive, for profiles



Material description

- Low friction Ultra High Molecular Weight Polyethylene (PEUHMW)
- Low electrical resistance, suitable for ESD protected areas (EPA)
- Very low wear rate with POM, PP, and PBT belts
- Less dusting, less microplastic compared to standard PEUHMW
- Higher speed and load limit (high P×V limit) compared to standard PEUHMW
- Resistant against cleaning agents typically used in food applications
- Halogen free and RoHS conform
- Silicon free
- No limitations regarding recycling or incineration
- Suitable for direct food contact (not for fatty food), see Food Certificates – DoC on www.Habasit.com

Material properties

General	Nominal value
Code	TP40-black+FE
Color	black
Density	0.93 g/cm ³
Water absorption	< 0.01 %
Thermal	Nominal value
Temperature range	-70°C to +65°C -94°F to +150°F
Coeff. of linear thermal expansion a	0.20 mm/(m•K) 0.00133 in/(ft•°F)
Electrical	Nominal value
Volume resistivity	> 10 ⁶ Ohm•cm
Surface resistivity	> 10 ⁶ Ohm
Mechanical	Nominal value
Tensile modulus	≥600MPa
Tensile strength (ultimate)	≥24Mpa
Tensile elongation (break)	≥140%

Coefficient of friction and wear rate

Belt / Chain	Friction (-) ⁽¹⁾	Wear rate ⁽²⁾
HabasitLINK® POM+AS	0.22	A++
HabasitLINK® POM+EC	0.21	A++
HabasitLINK® PP+AS	0.22	A++
HabasitLINK® PP+EC	0.21	A++
HabasitLINK® PP+FC	0.21	A+
HabaCHAIN® EC	0.21	A++

A++, Best performance

A+, Good performance

A, Standard combination

B, Acceptable but not recommended

C, Bad combination, do not use

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

⁽²⁾ evaluated from pin on disk test, total wear rate of pin and disk together, 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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