

BIW Isolierstoffe GmbH

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Certified management system by:

- IATF16949
- ISO9001
- ISO13485
- ISO14001
- ISO50001
- IIP (Investors in People)



TECHNICAL DATASHEET

INDUSTRIES AND APPLICATIONS



EXPANDEX PET

Typical uses

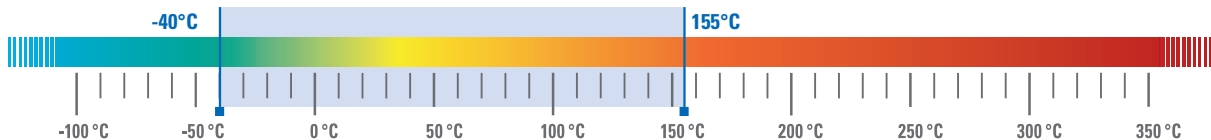
- Automotive industry
- E-mobility / hybrid
- Cable manufacture
- Line protection
- Machinery and plant engineering

Key properties

- Long-term heat resistance of -40°C to +155°C
- Short-term heat resistance up to +180°C
- Horizontal self-extinguishing
- Good resistance to water, salt spray mist, cleaning agents, impregnating resins as well as to fuels and lubricants in the event of temporary use
- Very good chemical resistance, very high abrasion resistance
- High tensile strength and flexibility
- Extreme radial stretching capabilities
- Very minimal moisture absorption
- Physiologically harmless
- Colour: orange, black, purple
- Nominal diameter 3,0 mm to 40,0 mm



Application temperature



Tests / References



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INDUSTRIES AND APPLICATIONS



EXPANDEX PET

Product description

The EXPANDEX PET protective hose is made of polyester monofilaments having high thermal and mechanical resistance. The hose has outstanding suitability for the bundling of cables and lines. For cuts to length, a hot cutting technique is used in order to prevent the braiding from fraying. EXPANDEX PET is distinguished by excellent resistance to fuels and lubricants. Due to the outstanding expandability of up to 100%, the nominal diameter is only a reference value for the application. Practical experiments are always advisable because these hoses are very extensible and a single nominal diameter is often suitable for various bundles of lines. EXPANDEX PET is designed as a mechanical protective hose without defined dielectric strength.

Application properties

Property	Standard	Test requirements	Result
Flame resistance	FMVSS 302 TL 1010	Flame height 38 mm Flame exposure 15s	Self-extinguishing classification B

Ageing

Property	Standard	Test requirements	Result
Short-term ageing 240h / 175°C	LV 312-3	Winding test	Requirements achieved

Mechanical / physical properties

Property	Standard	Test requirements	Result
Abrasion resistance	LV 312-3	Test at room temperature	Classification D

Compatibilities

Medium	Standard	Test requirements	Result
Automatic transmission oil	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved
Biodiesel	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved
Break fluid	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved
Diesel	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved
Intensive cleaner	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved
Cold cleaning agent	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved
Radiator antifreeze	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved

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EXPANDEX PET

Compatibilities

Medium	Standard	Test requirements	Result
Salt spray mist	DIN 50021-SS	5%NaCl 72h at 35°C	Requirements achieved
Water-Glycol-mixture	Based on LV 312-3	Storage time 385h temperature 150°C Winding test	Requirements achieved

Ecology, Environment & Safety

Ingredients compliant with VDA - requirements

IMDS listed

RoHS, GADSL compliant

Non hazardous to the environment, non-hazardous to water, land-fill disposable, no decomposing

Skin irritations from handling are excluded.

When using and disposing of the EXPANDEX PET protective sleeve there are no environmentally relevant co-products expected

BIW-Standard dimensions

EXPANDEX PET (Code: PSS)

On demand individual colours and dimensions available at any time. EXPANDEX PET is also available in custom cut length

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
3.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	200
4.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	200
5.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	200
6.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	200
7.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	100
8.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	100
9.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	100
10.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	100
15.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	100
20.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	100
25.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	50
30.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	50
35.0	∅ up to 100% expandible	0.50 - 1.00	±0.20	50

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ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
40.0	Ø up to 100% expandible	0.50 - 1.00	±0.20	50