

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



ULTRAFLEX

Typical uses

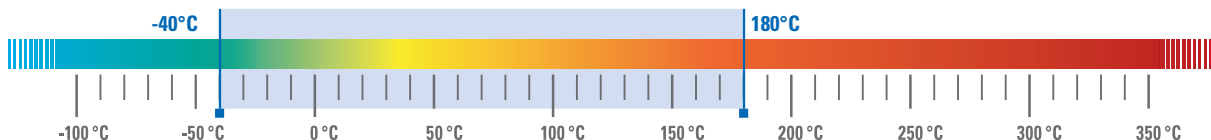
- Automotive industry
- E-mobility / hybrid
- Cable manufacture
- Line protection
- Commercial vehicles

Key properties

- Long-term heat resistance of -40°C to +180°C
- Short-term heat resistance up to +205°C
- Dielectric strength (optional: 2.5 kV to 8.0 kV)
- Horizontal self-extinguishing
- Good resistance to water, water-glycol mixture, salt spray mist, as well as to fuels and lubricants during temporary exposure
- Very good fibre glass impregnation by special immersion process
- Glossy and equal silicone coating, easy to assemble
- Reaction to fire according to UL
- Extensible in diameter by up to 100% (special setting)
- Good cut resistance
- Very good compressibility and flexibility
- Good abrasion resistance
- Physiologically harmless
- Wide range of colours
- Nominal diameter 0.5 mm to 60.0 mm



Application temperature



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ULTRAFLEX

Product description

The ULTRAFLEX protective sleeve is a combination of an inner textile glass fibre made out of a special plaited construction and a high-quality silicone coating. The special plaited construction ensures a high radial elasticity of up to 100% (special setting) without the ends fanning out. This fulfils the cable assembly requirements. It has high resistance to high temperatures and aggressive media. The ULTRAFLEX protective sleeve is also available in different colours. Also a special setting for a self-extinguishing version according to UL 1441 VW-1 or UL 94-V0 is possible.

Application properties

Property	Standard	Test requirements	Result
Electrical strength	DIN EN 60684	Testing at room temperature	> 2,50 kV
Flame resistance	LV 312-3 FMVSS 302	Flame height 38 mm Flame exposure 15s	Fire classification B

Ageing

Property	Standard	Test requirements	Result
Short-term ageing 240h / 205°C	Based on LV 312-3 ISO 6722-1	Winding test	Requirements achieved
Long-term ageing 3000h / 180°C	Based on LV 312-3 ISO 6722-1	Winding test	Requirements achieved

Mechanical / physical properties

Property	Standard	Test requirements	Result
Abrasion resistance	LV 312-3	Tested at room temperature	Classification B
Elongation	Self-test	Tapered mandrel	Up to 100% stretchable (special setting)

Ecology, Environment & Safety

Ingredients compliant with VDA - requirements

IMDS listed

RoHS, GADSL compliant

Non-asbestos, textile glass fibres non-carcinogenic, non-hazardous to the environment, non-hazardous to water

When using and disposing the ULTRAFLEX protective sleeve there are no environmentally relevant by-products expected.

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ULTRAFLEX

BIW-Standard dimensions

ULTRAFLEX (Code: GC2-GC8)

On demand individual colours and dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
2.0	±0.2	0.8	±0.2	200
4.0	±0.2	0.8	±0.2	200
6.0	±0.3	1.0	±0.3	200
8.0	±0.3	1.0	±0.3	200
10.0	±0.3	1.2	±0.3	100
12.0	±0.5	1.2	±0.3	100
14.0	±0.5	1.2	±0.3	50
16.0	±0.7	1.2	±0.3	50
18.0	±0.7	1.5	±0.3	50
20.0	±0.7	1.5	±0.3	50
22.0	±1.0	1.5	±0.5	25
24.0	±1.0	1.5	±0.5	25
26.0	±1.0	1.5	±0.5	25
28.0	±1.0	1.5	±0.5	25
30.0	±1.2	1.5	±0.5	25
32.0	±1.2	2.0	±0.7	25
34.0	±1.2	2.0	±0.7	25
36.0	±1.2	2.0	±0.7	5
38.0	±1.2	2.0	±0.7	5
40.0	±1.2	2.5	±0.7	5
50.0	±2.5	2.5	±0.8	5
60.0	±2.5	2.5	±0.8	5