

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



ISOTEX LSI - A

Typical uses

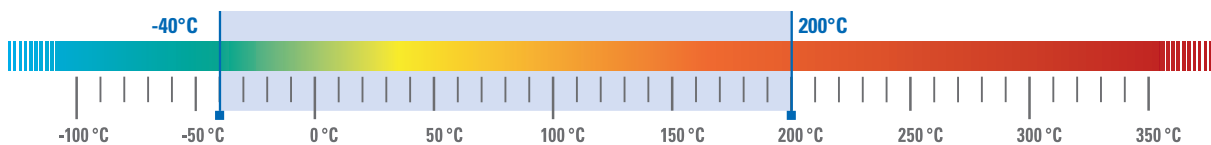
- Automotive industry
- E-mobility / hybrid
- Electrical insulation
- Electrical motors construction
- Cable manufacture
- Stator construction

Key properties

- Long-term heat resistance of -40°C to $+200^{\circ}\text{C}$
- Short-term heat resistance up to $+225^{\circ}\text{C}$
- Horizontal self-extinguishing
- Good resistance to water, salt spray, cleaning agents, transformer oil, impregnating resins as well as to fuels and lubricants during temporary exposure
- Very good fibre glass impregnation by special immersion process
- Good cut and abrasion resistance, high buckling strength
- Nominal diameter 0,5 mm to 12,0 mm



Application temperature



Product description

The ISOTEX LSI-A consists of a glass silk braid (textile glass) and a silicone impregnation that is applied in a special immersion process. The coating material is a silicone which in various versions ensures short-term temperature resistance of up to 225°C . Due to the silicone impregnation, the textile glass filaments are excellently soaked, thereby ensuring that no fibreglass dust is given off during production (cutting, chopping, etc.). The combination of a textile glass braid and silicone results in a particular elasticity, flexibility and extensibility of the ISOTEX LSI-A protective hose. The ISOTEX LSI-A can be worked very well in cable production.

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When it comes to competence

INDUSTRIES AND APPLICATIONS



ISOTEX LSI - A

Application properties

Property	Standard	Test requirements	Result
Electrical strength	DIN EN 60684	Test at room temperature	> 4,0 kV
Flame resistance	Based on LV312-3 FMVSS 302	Flame height 38 mm Flame exposure 15 s	Self-extinguishing

Ageing

Property	Standard	Test requirements	Result
Short-term ageing 240h / 225°C	Based on DIN EN 60684	winding test with 80% filling no cracks no bursting	Requirements achieved
Long-term ageing 3000h / 200°C	Based on DIN EN 60684	winding test with 80% filling no cracks no bursting	Requirements achieved

Mechanical / physical properties

Property	Standard	Test requirements	Result
Abrasion resistance	Based on LV312-3	Test at room temperature broach diameter 5mm bearing strength 7N	Classification B

Compatibilities

Medium	Standard	Test requirements	Result
Ad Blue	Based on DIN EN 60684 LV 312-3	winding test with 80% filling no cracks no bursting	Requirements achieved
Break fluid	Based on DIN EN 60684 LV 312-3	winding test with 80% filling no cracks no bursting	Requirements achieved
Diesel	Based on DIN EN 60684 LV 312-3	winding test with 80% filling no cracks no bursting	Requirements achieved
Radiator antifreeze	Based on DIN EN 60684 LV 312-3	winding test with 80% filling no cracks no bursting	Requirements achieved
Multigrade engine oil	Based on DIN EN 60684 LV 312-3	winding test with 80% filling no cracks no bursting	Requirements achieved
Grease	Based on DIN EN 60684 LV 312-3	winding test with 80% filling no cracks no bursting	Requirements achieved
Water-Glycol-mixture	Based on DIN EN 60684 LV 312-3	winding test with 80% filling no cracks no bursting	Requirements achieved

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ISOTEX LSI - A

Ecology, Environment & Safety

Ingredients compliant with VDA requirements

IMDS listed

RoHS, GADSL compliant

Non-hazardous to the environment, non-hazardous to water

Non-asbestos, textile glass fibres non-carcinogenic

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

BIW-Standard dimensions

ISOTEX LSI - A (Code: GSL)

On demand individual colours and dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
0.5	±0.15	0.50	±0.15	100
1.0	±0.20	0.60	±0.20	100
2.0	±0.30	0.60	±0.20	100
3.0	±0.30	0.70	±0.20	100
4.0	±0.30	0.70	±0.20	100
4.5	±0.30	0.70	±0.20	100
5.0	±0.30	0.70	±0.20	100
6.0	±0.30	0.70	±0.20	100
7.0	±0.30	0.70	±0.20	100
8.0	±0.30	0.80	±0.20	100
9.0	±0.30	0.80	±0.20	100
10.0	±0.30	0.80	±0.20	100
11.0	±0.40	0.80	±0.25	50
12.0	±0.40	1.00	±0.25	50