

BIW Isolierstoffe GmbH

Pregelstraße 2-5
D-58256 Ennepetal
Tel.: +49 (2333) 8308-0
Fax.: +49 (2333) 8308-10
info@biw.de
www.biw.de

Certified management system by:

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



TECHNICAL DATASHEET

INDUSTRIES AND APPLICATIONS



ISOFLEX 250

Typical uses

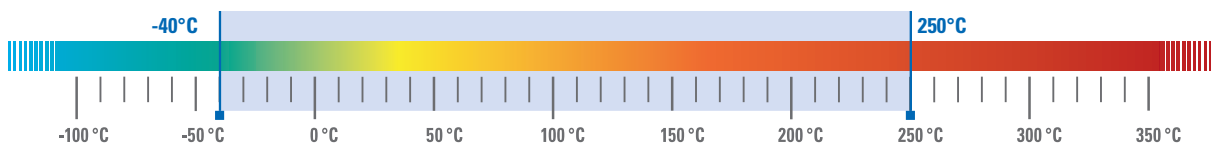
- Automotive industry
- E-mobility / hybrid
- Electrical insulation
- Cable manufacture
- Line protection

Key properties

- Long-term heat resistance of -40°C to +250°C
- Short-term heat resistance up to +275°C
- Self-extinguishing (UL)
- Good resistance to water, water-glycol mixture, salt spray, as well as to fuels and lubricants during temporary exposure
- Good elongation and compressibility
- Very flexible
- Physiologically harmless
- Excellent value for money through efficient knitting process
- Huge colour rangeNominal diameter 3.0 mm to 35.0 mm



Application temperature



Tests / References



- IATF16949
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INDUSTRIES AND APPLICATIONS



ISOFLEX 250

Product description

The ISOFLEX 250 protective sleeve is a combination of a textile glass fabric and an innovative silicone coating. The silicone coating has the characteristics of resistance to high loads in processing and use. The high performance knitting process in combination with the special silicone coating convinces with quality. The special design and efficient manufacturing processes ensure an equal internal and external surface, a very good compressibility where there is special roundness and good tensibility. These characteristics makes the process of cable assembly simple and effective. ISOFLEX 250 is highly resistant to high temperatures and aggressive media. ISOFLEX 250 is available in a huge range of colours and special setting in a self extinguishing version (UL 1441 VW-1 or UL 94-V0).

Application properties

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

Ageing

| Property | Standard | Test requirements | Result |
|--------------------------------|---------------------------------|-------------------|-----------------------|
| Short-term ageing 240h / 275°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 | Testing at room temperature | Classification A |

Compatibilities

| Medium | Standard | Test requirements | Result |
|---------------------|-------------------|---|-----------------------|
| Ad Blue | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Biodiesel | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Break fluid | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Diesel | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Intensive cleaner | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Cold cleaning agent | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Fuel FAM-B | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |

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ISOFLEX 250

Compatibilities

| Medium | Standard | Test requirements | Result |
|----------------------------|-------------------|---|-----------------------|
| Penetrating oil | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Radiator antifreeze | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Steering gear fluid | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Multigrade engine oil | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Engine compartment sealing | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Grease | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |
| Road saltsolution | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test0h and 1000h, 180°C, wrapping test | Requirements achieved |
| Water-Glycol-mixture | based on LV 312-3 | Storage 240h, 480h, 720h and 1000h, 180°C, winding test | Requirements achieved |

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 of the ISOFLEX 250 protective sleeve there are no environmentally relevant co-products expected.

BIW-Standard dimensions

ISOFLEX 250 (Code: GGH)

On demand individual colours and dimensions available at any time

| ID [mm] | Tol. ID [mm] | Wd [mm] | Tol. Wd [mm] | Ring [m] |
|---------|--------------|---------|--------------|----------|
| 3.0 | ±0.5 | 0.5 | ±0.2 | 200 |
| 4.0 | ±0.5 | 0.7 | ±0.2 | 200 |
| 5.0 | ±0.5 | 0.7 | ±0.2 | 200 |
| 6.0 | ±0.5 | 0.7 | ±0.2 | 200 |

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ISOFLEX 250

BIW-Standard dimensions

ISOFLEX 250 (Code: GGH)

On demand individual colours and dimensions available at any time

| ID [mm] | Tol. ID [mm] | Wd [mm] | Tol. Wd [mm] | Ring [m] |
|---------|--------------|---------|--------------|----------|
| 7.0 | ±0.5 | 0.7 | ±0.2 | 100 |
| 8.0 | ±0.5 | 0.8 | ±0.2 | 100 |
| 9.0 | ±0.5 | 0.8 | ±0.2 | 100 |
| 10.0 | ±0.5 | 0.8 | ±0.2 | 100 |
| 11.0 | ±0.5 | 0.8 | ±0.2 | 100 |
| 12.0 | ±0.5 | 0.8 | ±0.2 | 100 |
| 13.0 | ±0.5 | 0.8 | ±0.2 | 100 |
| 14.0 | ±0.5 | 0.8 | ±0.2 | 100 |
| 15.0 | ±0.5 | 0.8 | ±0.3 | 100 |
| 16.0 | ±0.7 | 0.8 | ±0.3 | 100 |
| 17.0 | ±0.7 | 0.8 | ±0.3 | 50 |
| 18.0 | ±0.7 | 0.8 | ±0.3 | 50 |
| 19.0 | ±0.7 | 0.8 | ±0.3 | 50 |
| 20.0 | ±0.7 | 0.8 | ±0.3 | 50 |
| 21.0 | ±0.7 | 1.0 | ±0.3 | 50 |
| 22.0 | ±0.7 | 1.0 | ±0.3 | 50 |
| 23.0 | ±0.7 | 1.0 | ±0.3 | 50 |
| 24.0 | ±0.7 | 1.0 | ±0.3 | 50 |
| 25.0 | ±0.7 | 1.0 | ±0.3 | 50 |
| 26.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 27.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 28.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 29.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 30.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 31.0 | ±0.8 | 1.2 | ±0.3 | 50 |

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BIW-Standard dimensions

ISOFLEX 250 (Code: GGH)

On demand individual colours and dimensions available at any time

| ID [mm] | Tol. ID [mm] | Wd [mm] | Tol. Wd [mm] | Ring [m] |
|---------|--------------|---------|--------------|----------|
| 32.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 33.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 34.0 | ±0.8 | 1.2 | ±0.3 | 50 |
| 35.0 | ±0.8 | 1.6 | ±0.4 | 50 |