

## 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



# THERMOFLEX RI STRETCHABLE

## Typical uses

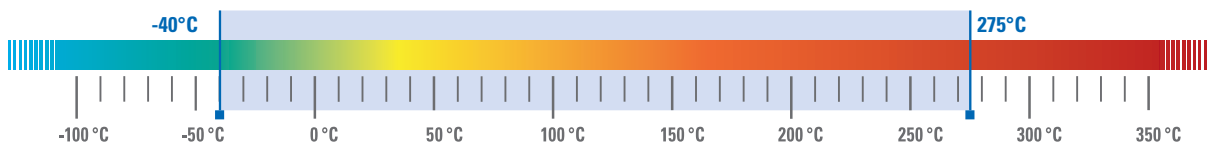
- Automotive industry
- Crash protection
- E-mobility / hybrid
- Cable manufacture
- Line protection
- Commercial vehicles

## Key properties

- Long-term heat resistance of -40°C to +275°C
- Short-term heat resistance up to +300°C
- Peaktemperature up to +450°C
- Good protection against marten bite
- Good resistance to chemicals, water, salt spray mist and cleaning agents of all types as well as fuels and lubricants at temporary effect
- Good abrasion resistance
- Extreme high radial extensibility
- Good cut resistance
- Good buckling resistance and tensile strength
- Thick walled version, insulating
- Sealing (fitting aid) of the ends at sections possible
- Physiologically harmless
- Colour: black, silver, natural
- Nominal diameter 6.0 mm to 30.0 mm



## Application temperature



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**THERMOFLEX RI STRETCHABLE**

**Product description**

THERMOFLEX RI STRETCHABLE consists of heavy duty textile glass fibres (E-glass) with an impregnation of silicone resin. The combination of these materials permits the use of the protective hose in the automotive industry under high thermal stress. The thermal resistance also stands up to 450°C (short term) in extreme situations. The protective function remains largely intact even in the case of partial thermal overloading due to the excellent temperature properties of the textile glass hose. At temperatures >300°C, it can result in colour changes. THERMOFLEX RI STRETCHABLE is distinguished by good resistance to short-term contact with fuels and lubricants. Water and salt spray mists do not inhibit the function of the protective hose. Because of its good kinking resistance and its very high radial extensibility, the THERMOFLEX RI STRETCHABLE protective hose is especially well suited for longer cable sets and can be obtained in almost any colour. THERMOFLEX RI STRETCHABLE is also designed, without defined electric strength, as a crash-protection hose. In order to prevent splaying or fraying at the interfaces during installation of the THERMOFLEX RI STRETCHABLE, the hose ends of the sections can be impregnated with a specially developed sealing. The sealing of the hose ends serves as a one-time fitting aid and is (short-term) temperature-resistant up to approximately 170°C.

**Application properties**

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

**Ageing**

Property	Standard	Test requirements	Result
Short-term ageing 240h / 300°C	LV 312-3	Winding test	Requirements achieved
Long-term ageing 3000h / 275°C	LV 312-3	Winding test	Requirements achieved

**Mechanical / physical properties**

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

**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.

The glass sleeve requires compliance with the industrial hygiene. Workplace ventilation has to be turned away from the worker, sensitive individuals may get slight skin irritation.

When using and disposing of the THERMOFLEX RI STRETCHABLE protective sleeve there are no environmentally relevant by-products expected.

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## THERMOFLEX RI STRETCHABLE

### BIW-Standard dimensions

#### THERMOFLEX RI STRETCHABLE (Code: GHD)

On demand individual colours and dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
6.0	±1.50	1.0	±0.20	100
8.0	±1.50	1.0	±0.20	100
10.0	±1.50	1.0	±0.20	50
12.0	±2.0	1.0	±0.20	50
14.0	±2.0	1.0	±0.20	50
16.0	±2.0	1.0	±0.20	50
18.0	±2.0	1.0	±0.20	25
20.0	±2.0	1.0	±0.20	25
22.0	±2.0	1.0	±0.20	25
24.0	±2.50	1.0	±0.20	25
26.0	±2.50	1.0	±0.20	25
28.0	±2.50	1.0	±0.20	25
30.0	±2.50	1.0	±0.20	25