

## 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

## Typical uses

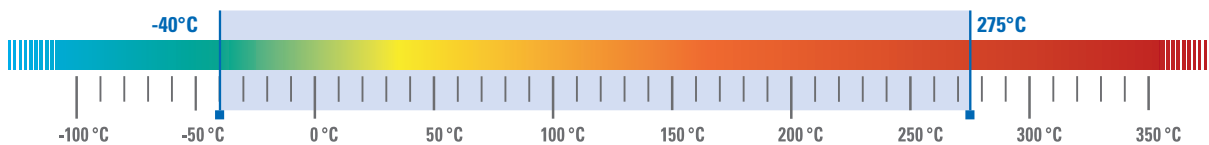
- Automotive industry
- Crash protection
- E-mobility / hybrid
- Cable manufacture
- Line protection
- Commercial vehicles

## Key properties

- Long-term heat resistance of -40°C to +275°C
- Short-term heat resistance up to +300°C
- Very good protection against marten bite
- Good resistance to water, water-glycol mixture, salt spray, as well as to fuels and lubricants during temporary exposure
- Good abrasion resistance
- Good impact protection
- High cut resistance, buckling resistance and tensile strength
- Thick walled (max. three-coat), thermally insulated
- Colour: natural, black
- Nominal diameter 5.0 mm to 30.0 mm



## Application temperature



## Tests / References



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## THERMOFLEX RI

## Product description

THERMOFLEX RI consists of high resilient textile glass fibres (E-glass) with a silicone resin impregnation. The combination of these materials allows use of the protective sleeve in the automotive sector with high thermal stress. Even in extreme situations (short-term) the sleeve resists a thermal load up to 450°C. The protective function still work after partial thermal overstress because of the excellent thermal properties of textile glass sleeve. The colour may change (black) at temperatures above 300°C. Also THERMOFLEX RI is characterized by good resistance against short-term contact with fuels and lubricants. Water and salt spray does not affect the function of the sleeve. THERMOFLEX RI is suitable for longer cable sets because of its good buckling resistance. The sleeve is available almost in any colour and up to a three-coat version. THERMOFLEX RI is designed as a crash protection sleeve, without a defined dielectric strength.

## Application properties

Property	Standard	Test requirements	Result
Flame resistance	FMVSS 302	Flame height 38 mm Flame exposure 15s	Requirements achieved

## Ageing

Property	Standard	Test requirements	Result
Short-term ageing 240h / 225°C	VW 60360-3	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 textile 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 protective sleeve there are no environmentally relevant by-products expected.

## BIW-Standard dimensions

### THERMOFLEX RI (Code: GHD)

On demand individual dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
5.0	±0.30	1.0	±0.30	100
6.0	±0.30	1.0	±0.30	100
7.0	±0.30	1.0	±0.30	100

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*When it comes  
to competence*

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## INDUSTRIES AND APPLICATIONS

**THERMOFLEX RI****BIW-Standard dimensions****THERMOFLEX RI (Code: GHD)**

On demand individual dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
8.0	±0.30	1.0	±0.30	100
9.0	±0.50	1.0	±0.30	50
10.0	±0.50	1.0	±0.30	50
11.0	±0.50	1.0	±0.30	50
12.0	±0.50	1.0	±0.30	50
13.0	±0.50	1.0	±0.30	50
14.0	±0.50	1.0	±0.30	50
15.0	±0.50	1.0	±0.30	50
16.0	±0.50	1.0	±0.30	50
17.0	±0.50	1.0	±0.30	50
18.0	±0.50	1.0	±0.30	25
19.0	±0.50	1.0	±0.30	25
20.0	±0.70	1.0	±0.30	25
21.0	±0.70	1.0	±0.30	25
22.0	±0.70	1.0	±0.30	25
23.0	±0.70	1.0	±0.30	25
24.0	±0.70	1.0	±0.30	25
25.0	±0.70	1.0	±0.30	25
26.0	±0.70	1.0	±0.30	25
27.0	±0.70	1.0	±0.30	25
28.0	±0.70	1.0	±0.30	25
29.0	±0.70	1.0	±0.30	25
30.0	±0.70	1.0	±0.30	25