

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 MARDER

Typical uses

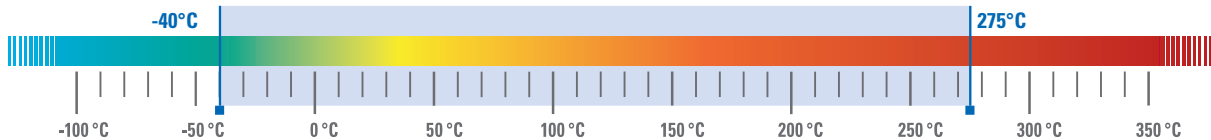
- Automotive industry
- Crash protection
- E-mobility / hybrid
- Cable manufacture
- Line protection
- Commercial vehicles

Key properties

- Long-term heat resistance of -40°C to +275°C
- Short-term heat resistance up to +300°C
- Institute-tested against marten bites
- Good resistance to water, water-glycol mixture, salt spray, as well as to fuels and lubricants during temporary exposure
- Thick walled, insulated, possible in double walled version
- High buckling and bending resistance, good impact protection
- High cut resistance
- Good abrasion resistance
- Colour: nature, schwarz
- Nominal diameter 5.0 mm to 30.0 mm



Application temperature



Tests / References



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THERMOFLEX RI MARDER

Product description

THERMOFLEX RI MARDER consists of high thermal load resistant and special braided textile glass fibre and a special silicone resins impregnation. The combination of these materials allows the use of the sleeve in automotive line protection against marten bites. Even on extrem situations the sleeve resists a thermal load up to 450°C. The colour may change (black) at temperatures above 300°C. THERMOFLEX RI MARDER is also 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 MARDER is suitable for longer cable sets because of its good buckling resistance, it can be dyed in a wide range of colours and it can be created in a triple walled version. THERMOFLEX RI MARDER is designed as 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	Self-extinguishing

Ageing

Property	Standard	Test requirements	Result
Short-term ageing 240h / 275°C	VW 60360-3	Winding test	Requirements achieved

Mechanical / physical properties

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

Compatibilities

Medium	Standard	Test requirements	Result
Ad Blue	Based on DIN EN 60684 LV 312-3 Customer specification	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Automatic transmission oil	Based on DIN EN 60684 LV 312-3 Customer specification	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Biodiesel	Based on DIN EN 60684 LV 312-3 Customer specification	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Break fluid	Based on DIN EN 60684 LV 312-3 Customer specification	Storage time 24h at room temperature Chemical externally spread	Requirements achieved

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THERMOFLEX RI MARDER

Compatibilities

Medium	Standard	Test requirements	Result
Multigrade engine oil	Based on DIN EN 60684 LV 312-3 Customer specification	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Grease	Based on DIN EN 60684 LV 312-3 Customer specification	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Water-Glycol-mixture	Based on DIN EN 60684 LV 312-3 Customer specification	Storage time 24h at room temperature Chemical externally spread	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.

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 the THERMOFLEX RI MARDER protective sleeve there are no environmentally relevant by-products expected.

BIW-Standard dimensions

THERMOFLEX RI MARDER (Code: GHM)

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
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

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**THERMOFLEX RI MARDER****BIW-Standard dimensions****THERMOFLEX RI MARDER (Code: GHM)**

On demand individual dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
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