

- IATF16949
- ISO9001
- ISO13485
- ISO14001
- ISO50001

## INDUSTRIES AND APPLICATIONS



## THERMOFLEX HRI DUO MARDER

### Typical uses

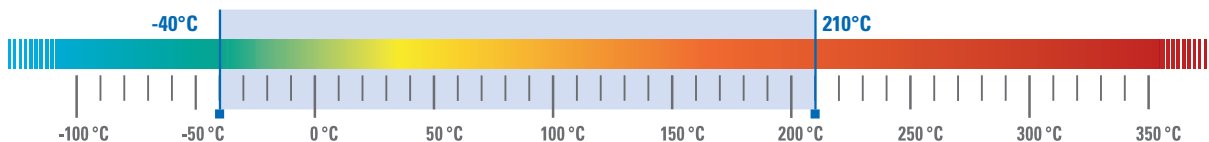
- Automotive industry
- Crash protection
- E-mobility / hybrid
- Cable manufacture
- Line protection
- Commercial vehicles

### Key properties

- Institute-tested against marten bites
- Long-term heat resistance of -40°C to +210°C
- Short-term heat resistance up to +235°C
- Abrasion classification B, LV 312-3
- Thick walled, very good insulated, possible in three-coat version
- Excellent crash protection
- High buckling resistance, cut resistance and impact resistance
- Good resistance to water, water-glycol mixture, salt spray, as well as to fuels and lubricants during temporary exposure
- Nominal diameter 5.0 mm to 30.0 mm



### Application temperature



### Product description

THERMOFLEX HRI DUO MARDER is a multilayer protective sleeve made of high thermal load and special braided textile glass fibre with a unique silicone resin impregnation. The combination of these materials allows the use of the sleeve in automotive line protection against marten bites as well as crash protection. Even in extreme situations (short-term) the sleeve can resist thermal load of up to 300°C. The colour may change (orange) at temperatures above 210°C. THERMOFLEX HRI DUO 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 HRI DUO MARDER is suitable for longer cable sets because of its good buckling resistance.

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**THERMOFLEX HRI DUO MARDER**

**Application properties**

Property	Standard	Test requirements	Result
Flame resistance	LV 312-3 FMVSS 302	Flame height 38 mm Flame exposure 15s	Requirements achieved

**Mechanical / physical properties**

Property	Standard	Test requirements	Result
Abrasion resistance	LV 312-3 ISO 6722-1	Test at room temperature	Classification B

**Compatibilities**

Medium	Standard	Test requirements	Result
Ad Blue	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Biodiesel	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Break fluid	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Diesel	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Intensive cleaner	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Cold cleaning agent	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Fuel FAM-B	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Penetrating oil	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Radiator antifreeze	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Grease	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved
Water-Glycol-mixture	LV 312-3	Storage 240h, 480h, 180°C, Winding test	Requirements achieved

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**THERMOFLEX HRI DUO MARDER**

**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 HRI DUO MARDER protective sleeve there are no environmentally relevant by-products expected.

**BIW-Standard dimensions**

**THERMOFLEX HRI DUO MARDER (Code: GHY)**

On demand individual dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
5.0	±0.30	1.7	±0.30	50
6.0	±0.30	2.0	±0.30	50
7.0	±0.30	2.0	±0.30	50
8.0	±0.30	2.0	±0.30	50
9.0	±0.30	2.0	±0.30	50
10.0	±0.50	2.0	±0.30	50
11.0	±0.50	2.0	±0.30	50
12.0	±0.50	2.0	±0.30	50
13.0	±0.50	2.0	±0.30	50
14.0	±0.50	2.0	±0.30	50
15.0	±0.50	2.0	±0.30	50
16.0	±0.50	2.0	±0.30	50
17.0	±0.50	2.0	±0.30	50
18.0	±0.50	2.0	±0.30	50
19.0	±0.50	2.0	±0.30	50
20.0	±0.70	2.0	±0.30	25
21.0	±0.70	2.0	±0.30	25
22.0	±0.70	2.0	±0.30	25
23.0	±0.70	2.0	±0.30	25

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**Certified management system by:**

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TECHNICAL DATASHEET

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**THERMOFLEX HRI DUO MARDER****BIW-Standard dimensions****THERMOFLEX HRI DUO MARDER (Code: GHY)**

On demand individual dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
24.0	±0.70	2.0	±0.30	25
25.0	±0.70	2.0	±0.30	25
26.0	±0.70	2.0	±0.30	25
27.0	±0.70	2.0	±0.30	25
28.0	±0.70	2.0	±0.30	25
29.0	±0.70	2.0	±0.30	25
30.0	±0.70	2.3	±0.30	25