BIW Isolierstoffe GmbH

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Certified management system by:

- IATF16949
- ISO9001
- ISO13485
- ISO14001
- ISO50001

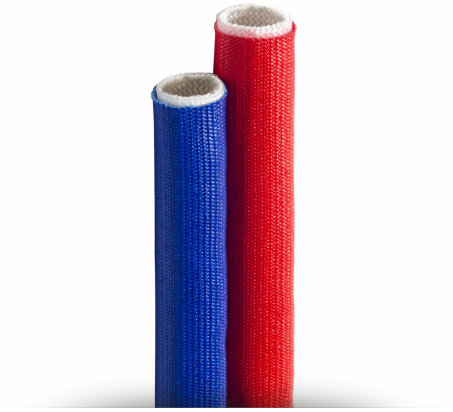
When it comes to competence

INDUSTRIES AND APPLICATIONS

VARNITEX GENIUS SE

Typical uses

- Automotive industry
- Electrical insulation
- Cable manufacture
- Machinery and plant engineering

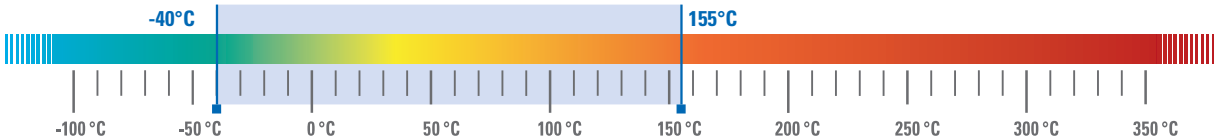


Key properties

- Long-term heat resistance of -40°C to +155°C
- Short-term heat resistance up to +180°C
- Double-walled, thermally insulated
- Outer layer with silicone-free coating
- Very high dielectric strength
- Good buckling and bending strength
- Very good abrasion behavior under mechanical stress
- Good resistance to transformer oil as well as various solvents: styrene, xylene, ethanol
- Physiologically harmless
- Available in many colours
- Nominal diameter 3,5 mm to 30,0 mm

Chlorine free

Application temperature



Product description

The VARNITEX GENIUS SE is a double-walled electrical insulating hose of braided textile fibreglass (E-glass) with two different coating materials. The internal silicone coating has excellent thermal and electrical properties. The outer layer is provided with a PU coating. The VARNITEX GENIUS SE is distinguished by very high dielectric strength, especially good elasticity and extensibility, good crack resistance , insensitivity to mechanical stress and, with occasional contact, good resistance to transformer oil as well as various solvents (e.g. styrene, xylene, ethanol, etc.). The outer coating has low static and dynamic friction, which simplifies installation and provides a high degree of safety against mechanical damage of the internal insulating hose during installation and in operation. VARNITEX GENIUS SE is available in many colours.

All information shown in this data sheet is based on our testing and experience and is to the best of our knowledge. It represents an accurate presentation of the product. The data are typical values and are not to be used as the end use specification. It is the customers' responsibility to test the suitability of the material for their application. Any recommendations for use are for guidance only and are offered without warranty or guarantee. Subject to change without notice.

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Application properties

Property	Standard	Test requirements	Result
Electrical strength	DIN EN 60684	Test at room temperature	> 7,0 kV
Flame resistance	FMVSS 302	Flame height 38 mm Flame exposure 15s	Self-extinguishing

Mechanical / physical properties

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

Compatibilities

Medium	Standard	Test requirements	Result
Grease	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24 h at room temperature winding test	Requirements achieved
Transformer oil	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24 h at room temperature winding test	Requirements achieved
Impregnation resin	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24 h at room temperature winding test	Requirements achieved

Ecology, Environment & Safety

Ingredients compliant with VDA - requirements
IMDS listed
RoHS, GADSL compliant
Non-asbestos and physiologically harmless,
non hazardous to the environment, not hazardous to water
Glass fibres non-carcinogenic
When using and disposing of the VARNITEX GENIUS SE protective sleeve there are no environmentally relevant by-products expected.

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VARNITEX GENIUS SE

BIW-Standard dimensions

VARNITEX GENIUS SE (Code: GVG)

On demand individual colours and dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
3.5	+0.5	1.5	±0.3	50
5.0	+0.5	1.5	±0.3	50
6.0	+0.5	1.5	±0.3	50
7.0	+0.5	2.0	±0.3	50
8.0	+0.5	2.0	±0.3	50
9.0	+0.5	2.0	±0.3	50
10.0	+0.7	2.0	±0.3	50
11.0	+0.7	2.2	±0.3	50
12.0	+0.7	2.2	±0.3	50
13.0	+0.7	2.2	±0.3	50
14.0	+0.7	2.2	±0.3	50
15.0	+0.7	2.5	±0.3	50
16.0	+0.8	2.5	±0.3	50
17.0	+0.8	2.5	±0.3	50
18.0	+0.8	2.5	±0.3	50
19.0	+0.8	2.5	±0.3	50
20.0	+0.8	2.8	±0.4	25
21.0	+0.8	2.8	±0.4	25
22.0	+0.8	2.8	±0.4	25
23.0	+0.8	2.8	±0.4	25
24.0	+0.8	2.8	±0.4	25
25.0	+1.0	2.8	±0.4	25
26.0	+1.0	2.8	±0.5	25
27.0	+1.0	2.8	±0.5	25
28.0	+1.0	2.8	±0.5	25
29.0	+1.0	2.8	±0.5	25
30.0	+1.0	3.0	±0.5	25

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