

BIW Isolierstoffe GmbH

Pregelstraße 2-5
D-58256 Ennepetal
Tel.: +49 (2333) 8308-0
Fax.: +49 (2333) 8308-10
info@biw.de
www.biw.de

Certified management system by:

- IATF16949
- ISO9001
- ISO13485
- ISO14001
- ISO50001
- IIP (Investors in People)



TECHNICAL DATASHEET

INDUSTRIES AND APPLICATIONS



POLYTEX HE

Typical uses

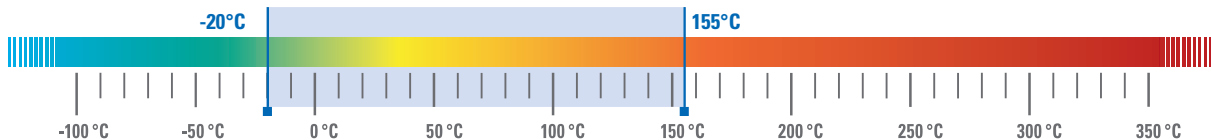
- Automotive industry
- E-mobility / hybrid
- Electrical insulation
- Electrical motors construction
- Transformers construction

Key properties

- Long-term heat resistance of -20°C to +155°C
- Short-term heat resistance up to +180°C
- DIN EN 60684 compliant
- UL 1441 Recognition, File no. E165094, depending on dimension
- High dielectric strength
- Insulation class F (155°C)
- Solvent-free (environmentally friendly process)
- Physiologically harmless
- Excellent resistance against impregnating resin
- Extremely flexible and tensible, good tear resistance, high buckling and bending strength
- Huge colour range
- Nominal diameter 0.5 mm to 30.0 mm



Application temperature



Product description

POLYTEX HE with UL 1441 Recognition is an electric insulating sleeve made of textile glass fabric and a special acrylate-PU resin coating. POLYTEX HE is characterized by high dielectric strength, very good elasticity, extreme flexibility, good tensile strength and excellent resistance to transformer oil and various solvents (styrene, xylene, ethanol, etc.) and impregnating resins. POLYTEX HE is made for use in engine and transformer construction. POLYTEX HE is available in standard colours (natural, black, red, blue, yellow and green). Special colours are possible on demand.

PUBLISHED 10/2021 (V3)

PAGE 1 OF 4

- IATF16949
- ISO9001
- ISO13485
- ISO14001
- ISO50001
- IIP (Investors in People)

INDUSTRIES AND APPLICATIONS



POLYTEX HE

Application properties

Property	Standard	Test requirements	Result
Electrical strength	DIN EN 60684	Test at room temperature	> 5.0 kV
Electrical strength	UL 1441	Checked in the crease	> 5.0 kV
Flame resistance	UL 1441	Horizontal	Self-extinguishing
Low temperature flexibility	DIN EN 60684	Test at -30°C Winding test	Requirements achieved

Ageing

Property	Standard	Test requirements	Result
Short-term ageing 60 days / 190°C	UL 1441	Curved test piece	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
Ethanol	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Grease	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Transformer oil	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Impregnation resin Voltatex 4200	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24h at room temperature Chemical externally spread	Requirements achieved
Impregnation resin Voltatex 4250	DIN EN 60684 DIN 40620 Customer specifications	Storage time 24h at room temperature Chemical externally spread	Requirements achieved

BIW Isolierstoffe GmbH

Pregelstraße 2-5
D-58256 Ennepetal
Tel.: +49 (2333) 8308-0
Fax.: +49 (2333) 8308-10
info@biw.de
www.biw.de

Certified management system by:

- IATF16949
- ISO9001
- ISO13485
- ISO14001
- ISO50001
- IIP (Investors in People)



TECHNICAL DATASHEET

INDUSTRIES AND APPLICATIONS



POLYTEX HE

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

In use and disposal of the POLYTEX HE protective sleeve there are no environmentally relevant co-products expected

BIW-Standard dimensions

POLYTEX HE (Code: GPV)

On demand individual colours and dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
0.5	+0.18	minimum 0.279		200
0.8	+0.17	minimum 0.330		200
1.0	+0.21	minimum 0.381		200
1.5	+0.2 - 0.05	minimum 0.381		200
2.0	+0.25	minimum 0.381		200
2.5	+0.29	minimum 0.457		100
3.0	+0.2 - 0.1	minimum 0.457		100
3.5	+0.3	minimum 0.457		100
4.0	+0.3	minimum 0.508		100
4.5	+0.4	minimum 0.508		100
5.0	+0.5	minimum 0.508		100
6.0	+0.5	minimum 0.508		100
7.0	+0.5	minimum 0.508		100
8.0	+0.6	minimum 0.635		100
9.0	+0.5	minimum 0.635		100
10.0	+0.6	minimum 0.635		100
12.0	+0.6	minimum 0.635		100
14.0	+0.6	minimum 0.635		100
16.0	+0.7	minimum 0.635		50
18.0	+0.7	minimum 0.635		50

(Continued on the next page)

BIW Isolierstoffe GmbH

Pregelstraße 2-5
D-58256 Ennepetal
Tel.: +49 (2333) 8308-0
Fax.: +49 (2333) 8308-10
info@biw.de
www.biw.de

Certified management system by:

- IATF16949
- ISO9001
- ISO13485
- ISO14001
- ISO50001
- IIP (Investors in People)



TECHNICAL DATASHEET

INDUSTRIES AND APPLICATIONS



POLYTEX HE

BIW-Standard dimensions

POLYTEX HE (Code: GPV)

On demand individual colours and dimensions available at any time

ID [mm]	Tol. ID [mm]	Wd [mm]	Tol. Wd [mm]	Ring [m]
20.0	+0.9	minimum 0.635		50
21.0	+0.9	minimum 0.635		25
22.0	+0.9	minimum 0.635		25
23.0	+0.9	minimum 0.635		25
24.0	+0.9	minimum 0.635		25
25.0	+0.9	minimum 0.635		25
26.0	+0.9	minimum 0.635		25
27.0	+0.9	minimum 0.635		25