



## Product Highlights

- Operating temperature from -60°C to +220°C (-76°F to +428°F) (Class H)
- Expansion Ratio: 1 : 1.3
- Flame resistant
- EN45545-2
- NFPA 130
  - ASTM E-162
  - ASTM E-662
- BSS 7239
- SMP 800-C
- Zero Halogen
- 4 kV or 10kV dielectric strength

## Installation Features

- Very flexible
- Local reinforcement of electrical insulation
- Electrical Cabinet
- Protection of ground shunts



Our manufacturing sites are certified ISO 9001, IATF 16949, or AS/EN 9100, ISO 14001 and ISO 45001 (Selected Sites)

**GES** is a braided fiberglass sleeve with a silicone rubber coating designed to provide electrical insulation. The thickness of the silicone coating determines the dielectric strength, which ranges from 4 to 10 kV.

The high flexibility of GES allows for a relative expansion ratio of approximately 30%. This product provides electrical insulation for a wide range of industries and applications, including winding, engines and transformer outlets.

# Performance Data – GES

Property	Test Method	Result
Operating Temperature	MIL standard 1003190C (class +220°C (+428°F)), type D, category C	-60°C (-76°F) to +220°C (+428°F) (continuous) Meets requirement
Flame Resistance	UL 1441 (VW1) NF 16.101 - 16.102 DIN 5510-2 & 54837 DIN EN ISO 5659-2 EN 45545-2 ASTM E 662 – ASTM E 162 SMP 800-C – BSS 7239	Pass I2-F0 S4, SR2 & ST2 (from sizes 12 to 32) CIT 8 min: 0,024 ; FED 30 min: 0,020 R22 HL3 R23 HL3 Pass Pass
Dielectric measurements	NF standard C93.641	See table below
Volume resistivity		10 <sup>12</sup> ohms/cm
Resistance to transformer fluids	NF standard C.93641	Pass

All numeric performance data shows average or typical values. Please consult your sales representative for product drawings, test reports and OEM approvals.

## Electrical Performances

GES is available in 2 versions with the following dielectric strength:

Description	Dielectric Strength (average value)	Dielectric Strength (minimum)
GES 40	4.0 kV	2.5 kV
GES 100	10.0 kV	7.0 kV

## Availability

Bentley-Harris® GES is available in sizes from 0.5 to 28 mm (1/64" to 1-1/8"). The standard color is red iron oxide.

Please consult the factory with needs for special colors, which are available on a minimum order basis.

All numeric data show average or typical values.

## Product Specifications

Internal Diameter (mm) (in)	Diameter Tolerance (mm)	Standard Packaging (m) (ft)	Internal Diameter (mm) (in)	Diameter Tolerance (mm)	Standard Packaging (m) (ft)
0.5 (1/64")	± 0.2	250 (820)	9 (23/64")	± 0.5	100 (328)
1.0 (1/32")	± 0.2	250 (820)	10 (25/64")	± 0.5	100 (328)
1.5 (1/16")	± 0.2	250 (820)	12 (15/32")	± 0.5	100 (328)
2 (5/64")	± 0.2	250 (820)	14 (35/64")	± 0.5	100 (328)
2.5 (3/32")	± 0.2	250 (820)	16 (5/8")	± 0.7	50 (164)
3 (7/64")	± 0.2	250 (820)	18 (23/32")	± 1.0	50 (164)
4 (5/32")	± 0.2	250 (820)	20 (51/64")	± 1.5	50 (164)
5 (13/64")	± 0.3	250 (820)	22 (7/8")	± 1.5	25 (82)
6 (1/4")	± 0.3	250 (820)	25 (63/64")	± 2.0	25 (82)
7 (9/32")	± 0.3	100 (328)	28* (1-1/8")	± 2.0	25 (82)
8 (5/16")	± 0.3	100 (328)			

\* Only available in GES 40

## Part Numbering System:

Example:	Description	Size	Color	Quantity
	GES 40	10	12 (red iron oxide)	100m (328ft)



United States: (1) 800 926 2472 • México: (52) 442 101 8100 • Brazil: (55) 19 3116 1600

EMEA: (33) 3 44 39 06 06 • Japan: (81) 45 330 0300 • China: (86) 21 6182 7560

Southeast Asia: (66) 35 276 400 • Korea: (82) 44 861 6368 • India: (91) 124 4784565

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