



OUR COMPANY

Since 1927, FAVIER Group has been developing and transmitting its experience and know-how in the field of braiding to be today a key leader in Europe in the production and marketing of insulating sleeves.

With two brands (FAVIER TPL & SIGI), two production sites in Europe (France and Italy), and a subsidiary in India (SF SLEEVINGS), FAVIER Group offers its customers technical products (braided insulating sleeves, extruded insulating sleeves, fireproof sleeves, tapes, cords) as well as services (special packaging, cuts to length, special colors, etc...) meeting their requirements in terms of performance, reliability, price, availability, responsiveness and innovation.

With 70% of its annual turnover generated from exports, most of its technical products are available worldwide, in particular thanks to its distribution network widely covering all territories.







OUR PRODUCTS

These technical products, presented in this catalog, provide thermal protection, electrical protection and/or mechanical protection in application sectors such as electromechanic, household appliances, railways, automobiles, lighting, steel industry, and many other areas.

You will find in this catalog all the technical and normative information. You will also be able to discover new products and services available on request. All of this information is also accessible on our website at www.favier-group.com or by scanning the QR Code on the technical datasheets.

Of course, all non-standard products developed, manufactured and marketed by FAVIER Group are not included in this catalog. This is why for any particular need, you can contact our sales department directly, who will be happy to support you in your project.

APPLICATION DOMAIN



Aeronautic



Electric cupboard



Automotive



Boiler



Chemical industry



Shipbuilding



Electromechanic



Electric household appliances



Electronic



Railway



Ovens, radiators



Petroleum industry



Lighting



Medical sector



Nuclear industry



Cable protection








Heating elements



Steel industry, Metallurgy, glass factory

PRODUCT LIST

| REFERENCE | DESCRIPTION | CONTINUOUS TEMPERATURE (°C) | DIELECTRIC STRENGTH (KV) | UL HOMOLOGATION | PAGE |
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| CLASS B | | | | | |
| PVC 70 | Extruded PVC sleeving | -20°C to +70°C | 10 to 20kV/mm | | 8 |
| PVC 105 | Extruded PVC sleeving | -20°C to +105°C | 10 to 20kV/mm | | 9 |
| PVC 125 | Extruded PVC sleeving | -20°C to +125°C | 10 to 20kV/mm | | 10 |
| PVC 105 UL | Extruded PVC sleeving | -20°C to +105°C | 10 to 20kV/mm |  | 11 |
| TER | Heat shrinkable tubes | See the range | |  | 12 |
| GETC | Rubber thermoplastic sleeving EPDM | -40°C to +125°C | - | | 13 |
| CLASS F | | | | | |
| TUBOTHANE | Extruded sleeving thermoplastic polyurethane | -30°C to +155°C | 8 to 15 kV | | 14 |
| GPE | Monofilament polyester braided sleeving | -50°C to +155°C | - |  | 15 |
| 13F3 | Glass fibre braided sleeving with polyurethane varnish | -30°C to +155°C | 3 kV | | 16 |
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| SEP UL | Glass fibre braided sleeving with polyurethane varnish | -30°C to +155°C | 3 to 10 kV |  | 18 |
| SEP-R | Glass fibre braided sleeving with polyurethane rigid | -30°C to +155°C | 3 to 10 kV |  | 19 |
| SEPx2 | Double glass fibre braided sleeving with polyurethane | -30°C to +155°C | > 8 kV | | 20 |
| 13F AC | Glass fibre braided sleeving with acrylic coating | -30°C to +155°C | 3 to 7 kV | | 21 |
| 13F7 AC UL | Glass fibre braided sleeving with acrylic coating | -30°C to +155°C | 7 kV |  | 22 |
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| CLASS C | | | | | |
| SIL | Extruded silicone tube | -50°C to +200°C | - | | 24 |
| 21C - 21F1 | Glass fibre braided sleeving impregnated | -30°C to +250°C | 0.5 to 1.5 kV | | 25 |
| 21F1 UL | Glass fibre braided sleeving impregnated | -30°C to +250°C | 0.5 to 1.5 kV |  | 26 |
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| 15C UL | Glass fibre braided sleeving coated with silicone rubber | -60°C to +250°C | 1.5 to 7 kV |  | 28 |
| SCS | Glass fibre braided sleeving coated with silicone rubber | -60°C to +250°C | 1.5 to 20 kV | | 29 |
| SCS UL | Glass fibre braided sleeving coated with silicone rubber | -60°C to +250°C | 1.5 to 20 kV |  | 30 |
| SCS 7kV UL | Glass fibre braided sleeving coated with silicone rubber | -60°C to +250°C | 7 kV |  | 31 |
| SCS-E | Expandable glass fibre braided sleeving coated with silicone rubber | -60°C to +250°C | 3 kV | | 32 |
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| SSK-600 | Glass fibre knitted sleeving impregnated | -70°C to +650°C | - | | 41 |
| SI | Braided sleeving in silica fibre | -60°C to +1050°C | - | | 42 |
| MISCELLANEOUS | | | | | |
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Extruded PVC sleeving



APPLICATIONS



STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-3 sheets 100 to 105
- Compliant with SHVC (list published by the ECHA)

| Characteristics | Temperature class | Minimum temperature | Maximum temperature | Dielectrical strength | Density | Hardness | Resistance at break | Elongation at break | Good mechanical resistance |
|-----------------|-------------------|---------------------|---------------------|-----------------------|-------------------|----------|---------------------|---------------------|----------------------------|
| Unit | | °C | °C | kV/mm | G/cm ³ | ShA | MPa | % | |
| Test method | | | | | | ISO 868 | ISO 527 | ISO 527 | |
| PVC 70° | B | -20 | +70 | 10 to 20 | 1.48 ±0.02 | 90 ±2 | ≥ 16 | ≥ 270 | Yes |
| PVC 70° soft | B | -20 | +70 | 10 to 20 | 1.4 | 72 ±2 | ≥12.5 | >250 | Yes |

| Characteristics | Cold flex | LOI | Thermal stability congo red | Watertight | Very flexible | Manufactured diameters | Colours | Packaging |
|-----------------|-----------|---------------------------|-----------------------------|------------|---------------|------------------------|-------------|------------|
| Unit | °C | % | Minutes | | | mm | | |
| Test method | ISO 458 | CEI 20-22/87 ASTM 2863 | CEI 20-34/3-2 | | | | | |
| PVC 70° | -17 ±2 | ≥27 | ≥80 | Yes | Yes | 1 to 30 | All colours | On request |
| PVC 70° soft | | ≥21 | ≥50 | | | 1 to 30 | All colours | On request |

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Extruded PVC sleeving



APPLICATIONS



STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-3 sheets 100 to 105
- Compliant with SHVC (list published by the ECHA)

| Characteristics | Temperature class | Minimum temperature | Maximum temperature | Dielectrical strength | Density | Hardness | Resistance at break | Elongation at break | Good mechanical resistance |
|-----------------|-------------------|---------------------|---------------------|-----------------------|-------------------|----------|---------------------|---------------------|----------------------------|
| Unit | | °C | °C | kV/mm | g/cm ³ | ShA | N/mm ² | % | |
| Test method | | | | | | ISO 868 | ISO 527 | ISO 527 | |
| PVC 105* | B | -20 | +105 | 10 to 20 | 1.39 ±0.02 | 83 ±2 | ≥13 | ≥280 | Yes |

| Characteristics | Cold flex | Thermal stability congo red | Watertight | Very flexible | Manufactured diameters | Colours | Packaging | Anti-rat treatments | Self-extinguishing version |
|-----------------|-----------|-----------------------------|------------|---------------|------------------------|-------------|------------|---------------------|----------------------------|
| Unit | °C | Minutes | | | mm | | | | |
| Test method | ISO 458 | CEI 20-34/3-2 | | | | | | | |
| PVC 105* | -25 ±2 | ≥250 | Yes | Yes | 1 to 30 | All colours | On request | On request | On request |

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Extruded PVC sleeving



APPLICATIONS



STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-3 sheets 100 to 105
- Compliant with SHVC (list published by the ECHA)

| Characteristics | Temperature class | Minimum temperature | Maximum temperature | Dielectrical strength | Density | Hardness | Resistance at break | Elongation at break |
|-----------------|-------------------|---------------------|---------------------|-----------------------|--------------------|------------|---------------------|---------------------|
| Unit | | °C | °C | kV/mm | Kg/dm ³ | ShA | Mpa | % |
| Test method | | | | | ISO 1183/87 | ISO 868/85 | ISO R527-3 | ISO 527-3 |
| PVC 125° | B | -20 | +125 | 10 to 20 | 1.25 ±0.02 | 82 ±2 | ≥18 | ≥320 |

| Characteristics | Good mechanical resistance | Cold flex | Oxygen index | Thermal stability congo red | Watertight | Very flexible | Manufactured diameters | Colours |
|-----------------|----------------------------|-----------|--------------|-----------------------------|------------|---------------|------------------------|-------------|
| Unit | | °C | % | Minutes | | | mm | |
| Test method | | ISO 458 | CEI 20-22/87 | CEI 20-34/3-2 | | | | |
| PVC 125° | Yes | -25 ±2 | 23 ±1 | ≥240 | Yes | Yes | 1 to 30 | All colours |

| Characteristics | Packaging | Immersion in diesel fuel at +23°C for 6h | Immersion in unleaded gasoline at +23°C for 4h | Immersion in oil at +60°C for 72h | Oil resistant class 01 UL 114 4h x +70°C | Material suitable for classification of flammability |
|-----------------|------------|--|--|-----------------------------------|--|--|
| Unit | | | | | | |
| Test method | | | | ASTM2 | IRM 902 | |
| PVC 125° | On request | No cracking | No cracking | No cracking | No cracking | UL 94 V0 |

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Extruded PVC sleeving



CHARACTERISTICS

- Class of temperature : B
- Minimum temperature : -20°C
- Maximum temperature : +105°C
- Dielectrical strength : 10 to 20kV/mm
- Density : 1.44 g/cm³
- Hardness : 91 Sha ±2
- Resistance at break : ≥16 MPa
- Elongation at break : ≥ 270 %
- Self-extinguishing
- Good mechanical resistance
- Watertight
- Very flexible
- Good behaviour with hydrocarbons

STANDARDS*

- Compliant with RoHS directive
- Compliant to the Reach regulation
- EN 60684-1
- EN 60684-3 sheets 100 to 105
- Compliant with SHVC (list published by ECHA)
- UL224 - File E345725
VW-1- Oil resistant class 01

COLOURS AND PACKAGING

- Manufactured diameters : 2 to 22 mm
- Colours : all colours except transparent
- Packaging : on request

APPLICATIONS



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Extruded PVC sleeving



APPLICATIONS



STANDARDS*

- Compliant with directive RoHS 2011/65/CE
- Compliant with SHVC (list published by the ECHA)
- Compliant with CEI EN 60684-3-100-105
- Heavy Metals - Directive 2000/53/EC – ELV

| Characteristics | Temperature class | UL class | Oxygen index (LOI) | Thermal stability congo red | Minimum temperature | Maximum temperature |
|-----------------|-------------------|----------|--------------------|-----------------------------|---------------------|---------------------|
| Unit | | | % O ₂ | minutes | °C | °C |
| Test method | CEI 15-26 | UL94 | ISO4859 | CEI 20-34/3-2 | | |
| PVC 105* | A | V0 | >27 | ≥240 | -20 | +105 |

| Characteristics | Dielectrical strength | Density | Hardness | Resistance at break | Elongation at break | Good mechanical resistance |
|-----------------|-----------------------|--------------------|----------|---------------------|---------------------|----------------------------|
| Unit | kV/mm | Gr/cm ³ | ShA | MPa | % | |
| Test method | | | ISO 868 | EN ISO 527-2 | EN ISO 527-2 | |
| PVC 105* | 10 to 20 | 1.44 ±0.02 | 84 ±2 | ≥16 | 300 | Yes |

| Characteristics | Cold flex | Very flexible | Manufactured diameters | Colours | Packagings | Anti rat treatments |
|-----------------|-----------|---------------|------------------------|------------|------------|---------------------|
| Unit | °C | | mm | | | |
| Test method | ISO458 | | | | | |
| PVC 105* | -25 ±2 | Yes | 1 to 30 mm | All colors | On request | On request |

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Rubber thermoplastic sleeving with polyethylene and EPDM particle binder



STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- UL 94 HB
- CE ISO 3795

| Characteristics | UNIT | VALUE | TEST METHOD |
|--|-------------------|-----------------|--------------|
| Minimum temperature | °C | -40 | |
| Maximum temperature | °C | +125 | |
| Maximum peak temperature | °C | +150 | |
| Brittleness point | °C | -63 | ASTM D 746 |
| Density | g/cm3 | 0.96 | ASTM D 297 |
| Hardness | ShA | 72 | ASTM D 2240 |
| Tear at +25°C | daN/cm | 28 | ASTM D 624 |
| Tear at +100°C | daN/cm | 13 | ASTM D 624 |
| Breaking load | N/mm ² | 6.6 | ASTM D 412 |
| Elongation at break | % | 560 | ASTM D 412 |
| Tension set at +100°C | psi | 377 | ASTM D 412-C |
| Compression deformation (168h at +25°C) | % | 24 | ASTM D 395 |
| Compression deformation (168h at +100°C) | % | 38 | ASTM D 395-B |
| Bending fatigue (strain at +25°C) | | >3.4.106 Cycles | |
| 100% modulus | Mpa | 3.2 | ASTM D 412 |
| Waterproof | | Yes | |
| Flexible | | Yes | |
| Manufactured diameters | mm | 2 to 16 | |
| Colors | | On demand | |
| Packaging | | On demand | |

APPLICATIONS



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Heat-Shrinkable tubes



APPLICATIONS



| Reference | Ratio | Designation |
|---|-------|---|
| POLYOLEFIN AND PVC – THIN WALL TUBINGS | | |
| TER-102 | 2 :1 | +105°C, Heat - Shrinkable tubing in PVC, shiny surface |
| TER-103 | 2 :1 | +125°C, Heat - Shrinkable tubing in polyolefin, UL 224 VW-1 |
| TER-104 | 2 :1 | +125°C, Heat - Shrinkable tubing in polyolefin, in MINIBOX |
| TER-105 | 2 :1 | +135°C, Heat - Shrinkable tubing in polyolefin, UL 224 VW-1 |
| TER-106 | 3 :1 | +125°C, Heat - Shrinkable tubing in polyolefin, UL 224 VW-1 |
| POLYOLEFIN – DUAL WALL TUBINGS (WITH ADHESIVE) | | |
| TER-202 | 3 :1 | +125°C, Heat - Shrinkable tubing in polyolefin with adhesive |
| TER-203 | 4 :1 | +125°C, Heat - Shrinkable tubing in polyolefin with adhesive |
| OTHER THIN WALL AND SPECIAL TUBINGS | | |
| TER-301 | 2 :1 | +175°C, Heat - Shrinkable tubing in KYNAR, UL 224 VW-1 |
| TER-302 | 2 :1 | +190°C, Heat - Shrinkable tubing in KYNAR |
| TER-303 | 2 :1 | +200°C, Heat - Shrinkable tubing in fluoroelastomer VITON, UL 224 VW-1 |
| TER-304 | 4 :1 | +260°C, Heat - Shrinkable tubing in PTFE |
| MEDIUM AND HEAVY WALL TUBINGS | | |
| TER-401 | 4 :1 | +125°C, Medium wall heat - shrinkable tubing |
| TER-402 | 4 :1 | +125°C, Heavy wall heat - shrinkable tubing |
| TER-403 | 4 :1 | +125°C, Medium wall heat - shrinkable tubing with adhesive |
| TER-404 | 4 :1 | +125°C, Heavy wall heat - shrinkable tubing with adhesive |
| TER-405 | 6 :1 | +110°C, Heat - shrinkable tubing with adhesive |
| MEDIUM VOLTAGE PRODUCTS | | |
| TER-501 | 2 :1 | +105°C, Heat Shrinkable tubing for medium voltage BUS-BAR of medium thickness – 24 kV |
| TER-502 | 2 :1 | +105°C, Heat Shrinkable tubing for medium voltage BUS-BAR of high thickness - 36kV |
| MOULDED PARTS | | |
| TER-601 | 3 :1 | +100°C, Adhesive-lined heat shrinkable end cap |

Thermoplastic polyurethane extruded sleeving



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C. Peaks at +185°C (few hours)
- Dielectric strength constant over length : 8 to 15kV (depends on the thickness)
- Halogen free
- Good behaviour with the following products :
 - » Mineral oil at +60°C
 - » Alcohol 90°
 - » Soda at 20%
 - » Ethylene glycol
 - » Trichlorethylene
 - » White spirit
 - » Isopropanol
- Good mechanical resistance
- Good compatibility with same class impregnation varnishes
- Self-extinguishing
- Watertight
- Flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGING

- Manufactured diameters : from 0.8 to 20 mm
- Standard colour : yellow
- Other colours : green, blue, red, black, orange, white.

Standard packaging :

- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 4.5 mm : 200 m
- Diameter 5 mm : 400 m
- Diameter 6 mm : 300 m
- Diameter 7 mm : 200 m
- Diameter 8 mm : 400 m
- Diameter 9 mm : 300 m
- Diameter 10 mm : 200 m
- Diameter 12 mm : 250 m

APPLICATIONS



| Inner diameter (mm) | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 |
|---------------------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|-----|-----|-----|-----|------|------|------|------|------|
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.3 | 0.3 | 0.3 | 0.3 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |

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Expandable monofilament polyester braided sleeving



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -50°C to +155°C. Peaks at +180°C
- Halogen free
- Flammability : self-extinguishing
- Good mechanical resistance
- Excellent resistance to abrasion
- Good resistance to solvent
- Non watertight
- Very flexible
- Expansion ratio : from 1 to 2
- Use : Hot cutting to avoid fraying

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-3 sheets 340 to 342
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : 3 to 60 mm
- Standard colour : Black or grey

Standard packaging : Rolls

- Diameter 3 : 200 m
- Diameter 4 to 12 mm : 100 m
- Diameter 15 to 30 mm : 50 m
- Diameter 40 to 60 mm : 25 m

Other packaging : Bobbins

APPLICATIONS



| | | | | | | | | | | | | | | |
|-----------------------------|---|-----|------|----|----|----|----|----|----|----|----|----|----|----|
| Inner nominal diameter (mm) | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 15 | 20 | 25 | 30 | 40 | 50 | 60 |
| Inner maximal diameter (mm) | 6 | 8.5 | 10.5 | 12 | 15 | 19 | 22 | 25 | 30 | 38 | 49 | 64 | 70 | 84 |

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Glass fibre braided sleeving with polyurethane varnish



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C. Peaks at 180°C (few hours)
- Dielectric strength : 3kV
- Flammability : combustible but the glass fibre stands.
- Good mechanical resistance
- Good resistance to hydrocarbons
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good resistance with liquid fuels, no decomposition
- Watertight
- Flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN (CEI) 60684-3 sheet 409
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 30 mm
- Standard colour : Dark yellow

Standard packaging :

- Diameter 0.5 to 4 mm : 200 m
- Diameter 4.5 to 16 mm : 100 m
- Diameter 18 to 22 mm : 50 m
- Diameter 24 to 30 mm : 25 m

APPLICATIONS



| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Tolerance inner diameter (± mm) | 0.15 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 |
| Minimum wall thickness (mm) | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Maximum wall thickness (mm) | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.9 | 0.9 | 0.9 | 0.9 | 1 | 1 | 1 | 1 | 1.5 | 1.5 |

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Glass fibre braided sleeving with polyurethane varnish



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C. Peaks at +185°C (few hours)
- Dielectric strength : 3 to 10kV
- Hardness of the varnish : 60 Shore A
- Halogen free
- Flammability : combustible, but the glass fibre stands
- Good mechanical resistance
- Good resistance to hydrocarbons
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Watertight
- Flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN (CEI) 60684-3 sheet 409
- EN 60684-1
- EN 60684-2
- UL flame retardant test approved (horizontal test)

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 40 mm
- Standard colour : Natural
- Other colours (Only up to Ø20 mm) : Green, blue, red, black, orange, yellow, white

Standard packaging :

- Diameter 0.5 mm : 400 m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 14 to 20 mm : 50 m
- Diameter 22 to 40 mm : 25 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 32 | 35 | 40 |
|---------------------------------|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tolerance inner diameter (± mm) | 0.15 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |

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Glass fibre braided sleeving with polyurethane varnish



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C. Peaks at +185°C (few hours)
- Dielectric strength : 3 to 10kV
- Hardness of the varnish : 60 Shore A
- Halogen free
- Flammability : combustible, but the glass fibre stands
- Good mechanical resistance
- Good resistance to hydrocarbons
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Watertight
- Flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN (CEI) 60684-3 sheet 409
- EN 60684-1
- EN 60684-2
- UL 1441 / CSA C22.2 n°198.3
- Flame retardant test approved (Horizontal test) File n°UZKX2 - E302796

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 40 mm
- Standard colour : Natural
- Other colours (Only up to Ø20 mm) : Green, blue, red, black, orange, yellow, white

Standard packaging :

- Diameter 0.5 mm : 400 m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 14 to 20 mm : 50 m
- Diameter 22 to 40 mm : 25 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 32 | 35 | 40 | |
|---------------------------------|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tolerance inner diameter (± mm) | 0.15 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving with polyurethane varnish



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C. Peaks at +185°C (few hours)
- Dielectric strength : 3 to 10kV
- Up to twice more rigid than our reference SEP, according to the standard EN 60684-2 § 18
- Hardness of the varnish : 68 Shore A
- Halogen free
- Flammability : combustible, but the glass fibre stands
- Good mechanical resistance
- Good resistance to hydrocarbons
- Resistance to transformer oils
- Good compatibility impregnation varnishes of the same class
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Watertight
- Flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN (CEI) 60684-3 sheets 409
- EN 60684-1
- EN 60684-2
- Option : UL 1441/CSA C22.2 n°198.3
File number : UZKX2 – E302796

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 45 mm
- Colours up to Ø20 mm : Green, blue, red, black, orange, yellow, white, natural
- Colours beyond Ø20 mm : white

Standard packaging :

- Diameter 0.5 mm : 400 m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 14 to 20 mm : 50 m
- Diameter 22 to 45 mm : 25 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 32 | 35 | 40 | 45 | |
|---------------------------------|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tolerance inner diameter (± mm) | 0.15 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Double glass fibre braided sleeving with polyurethane varnish



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C. Peaks at +185°C (few hours)
- Dielectric strength : > 8kV
- Halogen free
- Flammability : combustible, but the glass fibre stands
- Very good mechanical resistance
- Good resistance to hydrocarbons
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Watertight
- Flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with the Reach regulation
- EN (CEI) 60684-3 sheet 409
- EN 60684-1
- EN 60684-2
- Pass the Flame retardant UL test (horizontal test)

COLOURS AND PACKAGINGS

- Manufactured diameters : From 2 to 14 mm
- Standard colour : Natural
- Other colours : Green, blue, red, black, orange, yellow

Standard packaging :

- Diameter 2 to 4 mm : 200 m
- Diameter 5 to 9 mm : 100 m
- Diameter 10 to 14 mm : 50 m

APPLICATIONS



| Inner diameter (mm) | 2 | 2.5 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 |
|---------------------------------|-----|-----|------|------|------|------|------|-----|-----|-----|-----|-----|
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving with acrylic coating



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C. Peaks at 180°C (few hours)
- Dielectric strength : 3kV to 7kV
- Halogen free
- Good mechanical resistance
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good resistance to fray
- Watertight
- Very flexible
- Good resistance to oils at +80°C (according to UL 1441)

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN (CEI) 60684-3 sheets 403 at 405
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 26 mm
- Standard colour : Yellow
- Other colours : green, blue, red, black, white

Standard packaging :

- Diameter 0.5 to 4.5 mm : 200 m
- Diameter 5 to 16 mm : 100 m
- Diameter 18 to 26 mm : 50 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 |
|---------------------------------|-----|-----|------|------|-----|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tolerance inner diameter (± mm) | 0.1 | 0.1 | 0.15 | 0.15 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 |

* I nostri prodotti soddisfano in tutto o in parte i requisiti per gli standard sopra menzionati. Le informazioni tecniche scritte sulle nostre schede tecniche corrispondono alle più recenti conoscenze di cui disponiamo su quei prodotti, ma l'utente non è esentato dalla verifica delle prestazioni nel reale particolare contesto di applicazione.

Glass fibre braided sleeving with acrylic coating



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -30°C to +155°C.
- 60 days at 190°C (according to UL1441)
- Dielectric strength : 7 kV minimum average, with no individual value below 5 kV (according to UL1441)
- Halogen free
- Good mechanical resistance
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good resistance to fray
- Watertight
- Very flexible
- Good oil resistance at 80°C (according to UL1441)

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN (CEI) 60684-3 sheets 403 to 405
- EN 60684-1
- EN 60684-2
- Homologation UL1441/CSA C22.2 N°198.3
Grade A acrylic coated fiberglass sleeving,
Rated 155°C, 600 Volts
Oil resistance
File N° : UZFT2/8 – E503429
- Pass the horizontal flame test (according to UL 1441)

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 25 mm
- Standard colour : Yellow
- Other colours : All colours

Standard packaging :

- Diameter 0.5 to 4.5 mm : 200 m
- Diameter 5 to 14 mm : 100 m
- Diameter 16 to 25 mm : 50 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 25 |
|---------------------------------|-----|-----|------|------|-----|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tolerance inner diameter (± mm) | 0.1 | 0.1 | 0.15 | 0.15 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 |

* I nostri prodotti soddisfano in tutto o in parte i requisiti per gli standard sopra menzionati. Le informazioni tecniche scritte sulle nostre schede tecniche corrispondono alle più recenti conoscenze di cui disponiamo su quei prodotti, ma l'utente non è esentato dalla verifica delle prestazioni nel reale particolare contesto di applicazione.

Polyester braided sleeving with an aluminium acrylic coating



CHARACTERISTICS

- Temperature class : F
- Continuous working temperature : from -25°C to +180°C.
Peaks at 200°C (few hours)
- Halogen free
- Good mechanical resistance
 - » Excellent resistance to abrasion
 - » Excellent resistance to cut
- Good heat reflection
- Good compatibility with same class impregnation varnishes
- Good resistance to fray
- Good resistance to UV
- Very flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN (CEI) 60684-3 sheets 403 at 405
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : From 1 to 12 mm
- Standard colour : Aluminium

Standard packaging :

- Diameter 1 to 4 mm : 200 m
- Diameter 5 to 12 mm : 100 m
- Other diameter on request

APPLICATIONS



| Inner diameter (mm) | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tolerance inner diameter (± mm) | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 |
| Minimum wall thickness (mm) | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Extruded silicone tube



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -50°C to +200°C
- Tearing resistance : 18 to 27 N/mm (ASTM D 624 B)
- Elongation at break : 350 to 700% (DIN 53504)
- Resistance at break : 8 to 12 N/mm² (DIN 53504)
- Hardness : 40 to 80 Shore A (DIN 53504)
- Density : 1,12 to 1,22 g/cm³ (EN ISO 1183-1 A)
- Not toxic for food products and physiological liquids
- Good resistance to :
 - » Atmospheric agents
 - » Ozone
 - » Low temperature : keeps its flexibility
 - » Non-concentrated acids
 - » Bases
 - » Water and sea water
 - » Ethylene oxide 100% during 3 days at 24°C
 - » Warm air up to 200°C
- Halogen free

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-3 sheets 121 to 124
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : 0.6 to 60 mm
- Standard colour : Transparent
- Other colours : Available on request

Standard packaging :

- Rolls
- (on request : in bobbins or cut according to wished size)

APPLICATIONS



* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving impregnated



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : From - 30°C to + 250°C. Peaks at +320°C
- Dielectric strength : from 0.5kV to 1.5kV, depends on the thickness
- Halogen free
- Resistance to flame : Non flammable
- Good resistance to thermal shocks
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron, no retraction
- Good behaviour with liquid combustibles : no decomposition
- Very flexible

OPTIONS

ISx2 : Reference IS + Glass fibre overbraided impregnated

STANDARDS*

- Compliant with directive RoHS
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-2
- Pass the flame retardant test UL/VW-1, vertical test

COLOURS AND PACKAGINGS

- Manufactured diameters : 0.5 to 70 mm
- Standard colour : White (21C), Black (21F1)
- Other colours : Green, blue, red, orange, yellow

Standard packaging :

- Diameter 0.5 to 4 mm : 200 m
- Diameter 4.5 to 14 mm : 100 m
- Diameter 16 to 30 mm : 50 m
- Diameter 35 to 70 mm : 25 m

APPLICATIONS



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|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 |
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |

Other information on request

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving impregnated



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : de -30°C à +250°C, Peaks at +320°C
- Dielectric strength : 0.5kV to 1.5kV, depends on the thickness
- Resistance to flame : non flammable
- Good resistance to thermal shocks
- Resistance to transformer oils
- Good compatibility with class C impregnation varnishes
- Good behaviour with soldering iron, no retraction
- Good resistance to liquid fuels
- Very flexible
- Halogen free

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach Regulation
- EN 60684-1
- EN 60684-2
- UL 1441
Flame retardant test approved, VW-1, (Vertical test)
File number : UZI02-E330510

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 70 mm
- Standard colour : black, white
- Other colours : green, blue, red, yellow, aluminium, white

Standard packaging :

- Diameter 0.5 to 4 mm : 200 m
- Diameter 5 to 14 mm : 100 m
- Diameter 16 to 30 mm : 50 m
- Diameter 32 to 70 mm : 25 m

APPLICATIONS



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|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 |
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |

Other information on request.

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving coated with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +250°C. Peaks at +290°C (few hours)
- Dielectric strength : 1.5kV to 4 kV
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Resistant to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Halogen free
- Watertight
- Very flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60695-2-10
- EN 60695-2-11
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- Pass the flame retardant test VW-1 (vertical test)

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 30 mm
- Standard colour : Brick red
- Other colours : green, blue, black, yellow, white, grey, brown
- Standard packaging :
 - Diameter 0.5 to 4 mm : 200 m
 - Diameter 5 to 16 mm : 100 m
 - Diameter 18 to 30 mm : 50 m

APPLICATIONS



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|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|----|----|----|----|----|----|----|----|----|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 |
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving coated with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +250°C. Peaks at +290°C (few hours)
- Dielectric strength : 1.5kV to 7kV
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Resistant to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Halogen free
- Watertight
- Very flexible

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60695-2-10
- EN 60695-2-11
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- Homologation UL 1441 / CSA 22.2 n°198.3
15CUL : flame retardant test approved VW-1 (vertical test)
File n°UZI2 - E330510

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 30 mm
- Standard colour : Brick red
- Other colours : green, blue, black, yellow, white, grey, brown

Standard packaging :

- Diameter 0.5 to 4 mm : 200 m
- Diameter 5 to 16 mm : 100 m
- Diameter 18 to 30 mm : 50 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|----|----|----|----|----|----|----|----|----|
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving coated with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +250°C. Peaks at +290°C (few hours)
- Dielectric strength : 1.5kV to 20 kV
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Resistant to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Halogen free
- Watertight
- Very flexible
- Fireproof

OPTIONS

The reference SCS can be overbraided with fibre glass or polyester yarn and varnish with a varnish of our range.

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- Compliant with the requirements of European regulations 118R03
- HL1, HL2 and HL3 according to the railway standard EN 45545
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2-11

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 60 mm
- Standard colour : Brick red, black
- Other colours : green, blue, red, orange, yellow, white, grey

Standard packaging :

- Diameter 0.5 mm : 400 m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 13 to 20 mm : 50 m
- Diameter 22 to 25 mm : 25 m
- Diameter 26 to 50 mm : 30 m
- Diameter 55 to 60 mm : 15 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|
| Tolerance inner diameter (± mm) | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving coated with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +250°C. Peaks at +290°C (few hours)
- Dielectric strength : 1.5kV to 20 kV
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Resistant to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Halogen free
- Watertight
- Very flexible
- Fireproof

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- Compliant with the requirements of European regulations 118R03
- HL1, HL2 and HL3 according to the railway standard EN 45545
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2 -11
- Homologation UL 1441 / CSA C22.2 N°198.3 Flame retardant approved, VW-1 (vertical test) File number : UZIQ2 - E235042

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 45 mm
- Standard colour : Brick red, black
- Other colour : on request

Standard packaging :

- Diameter 0.5 mm : 400 m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 13 to 20 mm : 50 m
- Diameter 22 to 25 mm : 25 m
- Diameter 26 to 45 mm : 30 m

APPLICATIONS



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|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|---|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 35 | 40 | 45 | |
| Tolerance inner diameter (± mm) | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving coated with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +250°C, peaks at +290°C (few hours)
- Dielectric strength : 7 kV
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Resistant to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels : no decomposition
- Halogen free
- Watertight
- Very flexible
- Fireproof

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- Compliant with the requirements of European regulations 118R03
- HL1, HL2 et HL3 according to the railway standard EN 45545
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2- 11
- Homologation UL 1441 / CSA C22.2 n°198.3
Grade A silicone coated fiberglass sleeving,
rated 200°C, 600 Volts
File number UZFT2/8 – E194299

COLOURS AND PACKAGINGS

- Manufactured diameters : from 0.5 to 50 mm
- Standard colour : brick red and black

Standard packaging :

- Diameter 0.5 mm : 400 m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 13 to 20 mm : 50 m
- Diameter 22 to 25 mm : 25 m
- Diameter 26 to 50 mm : 30 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 35 | 40 | 45 | 50 | |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|---|
| Tolerance inner diameter (± mm) | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Expandable glass fibre braided sleeving coated with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +250°C. Peaks at +290°C (few hours)
- Minimum expansion ratio : 1 :1.5
- Dielectric strength after expansion : 3 kV (other voltages on request)
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid fuels, no decomposition
- Halogen free
- Watertight
- Very flexible
- Fireproof

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- Compliant with the requirements of European regulations 118R03
- HL1, HL2 and HL3 according to the railway standard EN 45545
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2 -11
- Pass the flame retardant test, UL1441/VW-1 (vertical test)

COLOURS AND PACKAGINGS

- Manufactured diameters : From 2 to 45 mm
- Standard colour : Brick red
- Other colours : Green, blue, red, black, orange, yellow, white, grey

Standard packaging :

- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 13 to 20 mm : 50 m
- Diameter 22 to 35 mm : 25 m
- Diameter 38 to 45 mm : 30 m

APPLICATIONS



| Inner diameter (mm) | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 35 | 45 | 45 |
|---------------------------------|-----|-----|------|------|------|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical informations written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving coated with an aluminium silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +250°C. Peaks at +290°C (few hours)
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron
- Good behaviour with liquid combustibles : no decomposition
- Good resistance to abrasion according to the standard ISO 6722
- Halogen free
- Watertight
- Very flexible
- Fireproof

STANDARDS*

- Compliant with the RoHS directive
- Compliant with Reach regulation
- Compliant with the requirements of European regulations 118R03
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2 -11
- Pass the Flame retardant UL test (vertical test)

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 25 mm
- Standard colour : Aluminium

Standard packaging :

- Diameter 0.5 mm : 400m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 6 mm : 200 m
- Diameter 7 to 12 mm : 100 m
- Diameter 13 to 20 mm : 50 m
- Diameter 22 to 25 mm : 30 m

APPLICATIONS



| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|-----|-----|-----|-----|----|----|----|----|----|
| Tolerance inner diameter (± mm) | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Fireproof sleeving braided fibre glass with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +260°C
- Peaks at :
 - » 30 min at 800°C
 - » 15 min at 1100°C
 - » 1 min at 1500°C
- Good resistance to :
 - » Presence of flames
 - » Projection of metals or melting glass
 - » Occasional very high temperature
 - » Projection of vapour
- Excellent flexibility at low temperatures
- Slight swelling can be caused by hydrocarbons
- Good resistance to UV
- Asbestos free
- Self-extinguishing
- Watertight
- Halogen free
- Heat insulating
- Fireproof

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- Compliant with the requirements of European regulation 118R03
- HL1, HL2 and HL3 according to the required R22-R23 from railway standard EN45545
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2 -11

COLOURS AND PACKAGINGS

- Manufactured diameters : From 4 to 60 mm
- Standard colour : Brick red
- Other colour : on request
- Standard packaging :
 - Diameter 4 to 20 mm : 50 m
 - Diameter 22 to 60 mm : 30 m

APPLICATIONS



| | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Inner diameter (mm) | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 28 | 30 | 32 | 35 | 38 | 40 | 42 | 45 | 50 | 60 |
| Tolerance inner diameter (± mm) | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Wall thickness (mm) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

Other datas on request

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products but the user is not exempted to verify the performances in the real particular context of application.

Fireproof sleeving braided fibre glass with silicone rubber



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +260°C
- Peaks at :
 - » 30 min at 800°C
 - » 15 min at 1100°C
 - » 1 min at 1500°C
- Good resistance to :
 - » Presence of flames
 - » Projection of metals or melting glass
 - » Occasional very high temperature
 - » Projection of vapour
- Excellent flexibility at low temperatures
- Slight swelling can be caused by hydrocarbons
- Good resistance to UV
- Asbestos free
- Fireproof
- Watertight
- Halogen free
- Self-extinguishing
- Heat insulating

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- Compliant with the requirements of European regulation 118R03
- HL1, HL2 and HL3 according to the railway standard EN45545
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2 -11

COLOURS AND PACKAGINGS

- Manufactured diameters : From 6 to 152 mm
- Standard colour : Brick red
- Other colour : on request

Standard packaging :
• bobbins or rolls

APPLICATIONS



| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|-----|-----|-----|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|----|----|----|----|-----|-----|-----|-----|
| Inner diameter (mm) | 6 | 8 | 10 | 13 | 16 | 19 | 22 | 25 | 32 | 38 | 45 | 51 | 57 | 60 | 64 | 70 | 76 | 80 | 89 | 102 | 115 | 127 | 152 |
| Tolerance inner diameter (± mm) | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Wall thickness (mm) | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Fireproof sleeving braided fibre glass coated with silicone rubber stitched with nylon Velcro



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +260°C
- Can resist to melting glass projection at +1200°C.
- Good resistance to :
 - » presence of flames
 - » projection of metals or melting glass
 - » occasional very high temperature
 - » projection of vapour
- Excellent flexibility at low temperatures
- Slight swelling can be caused by hydrocarbons
- Good resistance to UV
- Asbestos free
- Fireproof
- Self Extinguishing
- Heat Insulating

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- HL1 and HL2 compliant according to railway standard EN45545
- EN (CEI) 60684-3 sheets 400 to 402
- EN 60684-1
- EN 60684-2
- EN 60695-2 -11

COLOURS AND PACKAGINGS

- Manufactured diameters : From 15 to 120 mm
- Standard color : Brick red

Standard packaging :
• Rolls of 15 or 20 meters

APPLICATIONS



* Our products pass all or parts of requirements for the above mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving impregnated silicone resin



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +350°C. Peaks at +400°C (few hours)
- Dielectric strength : from 0.5kV to 1.5kV depends on the thickness
- Flammability : non flammable
- Good resistance to UV
- Resistance to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron : no retraction
- Good behaviour with liquid fuels : no decomposition
- Flexible
- No watertight

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 50 mm
- Standard colour : Light brown

Standard packaging :

- Diameter 0.5 to 4 mm : 200 m
- Diameter 5 to 12 mm : 100 m
- Diameter 14 to 20 mm : 50 m
- Diameter 22 to 50 mm : 25 m

APPLICATIONS



| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 |
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| Minimum wall thickness (mm) | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.7 | 0.7 |
| Maximum wall thickness (mm) | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 | 0.8 | 1 | 1 | 1 | 1.5 | 1.5 |

Other information on demand.

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving treated high temperature



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +450°C. Peaks at +550°C (few hours)
- Dielectric strength : from 0.5kV to 1.5kV depends on the thickness
- Flammability : non-flammable
- Low mechanical resistance
- Resistant to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with soldering iron; no retraction
- Good behaviour with liquid combustibles : no decomposition
- Very flexible
- Non watertight
- Heat treated sleeving which does not leave any organic deposit

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-3 sheet 300
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 70 mm
- Standard colour : Silver white

Standard packaging :

- Diameter 0.5 : 400 m
- Diameter 0.8 to 1.5 mm : 300 m
- Diameter 2 to 4.5 mm : 200 m
- Diameter 5 to 12 mm : 100 m
- Diameter 14 to 20 mm : 50 m
- Diameter 22 to 70 mm : 25 m

APPLICATIONS



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|---------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 |
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| Minimum wall thickness (mm) | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.7 | 0.7 |
| Maximum wall thickness (mm) | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.8 | 0.8 | 1 | 1 | 1 | 1.5 | 1.5 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the use is not exempted to verify the performances in the real particular context of application.

Glass fibre braided sleeving



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +450°C. Peaks at +550°C (few hours)
- Dielectric strength : from 0.5kV to 1.5kV, depends on the thickness
- Flammability : Non flammable
- Low mechanical resistance
- Resistant to transformer oils
- Good compatibility with same class impregnation varnishes
- Good behaviour with the soldering iron, no retraction
- Good behaviour with liquid combustibles, no decomposition
- Very flexible
- Non watertight

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-3 sheet 300
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : From 0.5 to 200 mm
- Standard colour : White

Standard packaging :

- Diameter 0.5 to 4 mm : 200 m
- Diameter 5 to 12 mm : 100 m
- Diameter 14 to 20 mm : 50 m
- Diameter 22 to 100 mm : 25 m
- Diameter 100 to 200 mm : 15 m

APPLICATIONS



| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Inner diameter (mm) | 0.5 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 25 | 30 | 40 | 50 |
| Tolerance inner diameter (± mm) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Ref : SE Wall thickness (mm) | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.4 | 0.32 | 0.45 | 0.4 | 0.5 | 0.5 | 0.5 | 0.55 | 0.55 | 0.6 | 0.75 | 0.8 | 0.9 |
| Ref : SE-THT Wall thickness (mm) | | | | | | | | | | | | | | | | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 |

Other information on demand.

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Braided sleeving in basalt fibre untreated non-impregnated



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -260°C to +560°C. Peaks at +600°C
- Fireproof
- Resistance to flame : non flammable
- Low heat expansion coefficient
- Good flexibility
- Very high chemical resistance, especially to acid
- Good mechanical resistance
- Low rate of moisture absorption
- Good thermal insulation properties
- Low density
- Good behaviour with soldering iron, no retraction
- Frays slightly when cut
- 100% recyclable

CHEMICAL COMPOSITION

- SiO₂, Al₂O₃, MgO, CaO, FeO, Fe₂O₂, Fe₂O₃
- Asbestos free and halogen free guaranteed

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : from 2 to 50mm
- Standard colour : Khaki (natural)

Standard packaging :

- Diameter 2 to 8 mm : 100 m
- Diameter 10 to 20 mm : 50 m
- Diameter 22 to 50 mm : 25 m

APPLICATIONS



* Our products pass all or parts of requirements for the above-mentioned standard. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the use is not exempted to verify the performances in the real particular context of application.

Glass fibre knitted sleeving impregnated



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -70°C to +650°C. Peaks at +750°C (few hours)
- Flammability : self-extinguishing
- Good mechanical resistance
- Good resistance to UV
- Good conforms to component
- Good behaviour with liquid fuels, no decomposition
- Halogen free
- Excellent thermal insulation
- Excellent chemical resistance
- Very flexible
- Good expansion (more than 100%)

APPLICATIONS

- Mechanical protection and thermal insulation of exhaust gas recirculation (EGR) tubes and exhaust system components

STANDARDS*

- Compliant with RoHS regulation
- Compliant with Reach regulation

COLOURS AND PACKAGINGS

- Manufactured diameters : On request
- Standards colours : Light brown, black

- Packaging :
- on rolls or cutting

APPLICATIONS



| Property | Test method | Result |
|----------------------------|--|-------------|
| Thermal test | 16 hours at +700°C | No cracking |
| Thermal test | 7 days at +600°C | No cracking |
| Flammability | UL1441 VW-1 | No ignition |
| Bending at low temperature | After 4 hours at -70°C IEC 60684 Part 2 Clause 14 | No cracking |
| Bending after Heating | After 90 hours at +600°C IEC 60684 Part 2 Clause 13 | No cracking |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Braided sleeving in silica fibre untreated and non-impregnated



CHARACTERISTICS

- Temperature class : C
- Continuous working temperature : from -60°C to +1050°C. Peaks at +1200°C
- Fireproof
- Highly flexible
- Excellent resistance to radiation
- Frays slightly when cut
- Low heat expansion coefficient
- Excellent thermal insulation properties
- Low density
- Good behaviour with soldering iron, no retraction
- Very high chemical resistance, especially to acid

CHEMICAL COMPOSITION

- Silicon dioxide (SiO₂ 94-96%)
- Asbestos free guaranteed

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60684-1
- EN 60684-2

COLOURS AND PACKAGINGS

- Manufactured diameters : From 1 to 50 mm
- Standard colour : White (natural)

Standard packaging :

- Diameter 1 to 8 mm : 100 m
- Diameter 10 to 20 mm : 50 m
- Diameter 25 to 50 mm : 25 m

APPLICATIONS



| Inner diameter (mm) (nominal value) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 15 | 16 | 18 | 20 | 25 | 30 | 40 | 50 |
|--|-----|-----|-----|-----|-----|-----|-----|-----|---|----|----|----|----|----|----|----|----|-----|-----|-----|
| Indicative wall thickness (mm) (± 0,1mm) | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.3 | 1.7 | 1.7 |

* Our products pass all or parts of requirements for the above-mentioned standard, The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the use is not exempted to verify the performances in the real particular context of application.

Gaskets



COMPOSITION

CT : Glass fibre braided sleeving around glass fibre knitted rope with a core

CTTS : Glass fibre braided sleeving around glass fibre knitted rope with a core coating with silicone rubber

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- EN 60695-2
- EN 60695-2 -11

COLOURS AND PACKAGINGS

- Manufactured diameters : on request
- Standard colours : white (CT), Black (CTTS)
- Other colours (CTTS) : green, blue, red, orange, yellow, white, grey

Standard packaging :

- bobbins

APPLICATIONS

Seals for door of inserts, ingot moulds...



| CHARACTERISTICS | CT | CTTS |
|--|-------------|--------------------|
| Class of temperature | C | C |
| Minimum temperature | -60°C | -60°C |
| Maximum temperature | +450°C | +250°C |
| Peaks at | +550°C | +300°C |
| Compressibility | - | 80 % |
| Flammability | Unflammable | Self-extinguishing |
| Mechanical resistance | Good | Good |
| Flexibility | Good | Good |
| Resistance to UV | Good | Good |
| Resistance to soldering iron | Good | Good |
| Watertight | No | Yes |
| Resistance to chlorhydric and sulphuric acids at 80°C | Good | Good |
| Resistance to condensates during the combustion of fuel or various gases | Good | Good |

* Our products pas all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.

Tapes



COMPOSITION

TK : Braided or woven Kevlar tape
TV : Woven E glass fibre tape
TPNR : Polyester tape non shrinkable

STANDARDS*

- Compliant with RoHS directive
- Compliant with Reach regulation
- G 39-003 (05-1996) : TK
- EN 60684 - 2 (07/2012) : TV et TPNR
- EN 60684 - 1 (10-2003) : TV et TPNR

| CHARACTERISTICS | Unit | TK | TV | TPNR |
|--|---------|-------------------------------------|---------------------------------------|-------------------------------------|
| Temperature class | | C | C | F |
| Minimum temperature | °C | -60 | -60 | -30 |
| Maximum temperature | °C | +250 | +450 | +155 |
| Peaks at | °C | +330 | +750 | +185 |
| Dielectric strength | kV | 0.4 | - | 0,8 |
| Flammability | | Self-extinguishing | Self-extinguishing | Non flammable |
| Mechanical resistance | | Very good | Good | Good |
| Resistance to abrasion | | Excellent | - | - |
| Resistance to traction | | Very good | - | - |
| Resistance to chemical, attack of fuels, lubricants, detergents and salt water | | Excellent | Good | - |
| Resistance to transformer oils | | - | Pass test according to UTEC 93641 | Pass test according to UTEC 93641 |
| Behaviour with soldering iron | | Good | Good | - |
| Compatibility with impregnation varnishes from same class of temperature | | Good | Good | Good |
| Flexibility | | Good | Good | Good |
| Watertight | | No | No | No |
| Colour | | Yellow | White | White |
| Manufactured width | mm | 2 to 20 | 5 to 200 | 4 to 20 |
| Standard packaging | Bobbins | 2 to 14 mm : 500 m 20 mm : 200 m | 50 à 1000 m depends on wall thickness | 4 to 14 mm : 500 m 20 mm : 200 m |

APPLICATIONS



| Width (mm) | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 20 |
|-----------------------|---|---|---|---|----|-----|-----|-----|
| Tolerance/width (±mm) | 1 | 1 | 1 | 1 | 1 | 1.5 | 1.5 | 1.5 |

* Our products pass all or parts of requirements for the above-mentioned standards. The technical information written on our datasheets correspond to the most recent knowledge we have on those products, but the user is not exempted to verify the performance in the real particular context of application.

PACKAGING

Our sleeveings can be packaged in :



CARDBOARD BOBBIN



PLASTIC BOBBIN



ROLL



TRACEABILITY :

The batch number appears on labels and ensure traceability of the product.



CUT TO LENGTH :

Our sleeveing can be cut to length : from 10 mm to several meters and packaged in plastic bags or cardboard box.



Heat-Shrinkable tubes



APPLICATIONS



STANDARDS*

- Compliant with directive RoHS 2002/95/CE
- Compliant with directive RoHS 2011/65/CE
- Compliant with SHVC (list published by the ECHA)
- Compliant with low voltage Directive 72/23/EEC and 93/68/EEC dated 22/07/1993
- Compliant with Electromagnetic Compatibility Directive 89/336/ECE dated 20/07/2007

| Characteristics | UNIT | TEST METHOD | VALUE |
|---------------------------------------|-------|--|---|
| Shrink ratio | | | 2 ÷ 1 |
| Operating temperature | °C - | | -55°C ÷ +125°C |
| Operating temperature | | | |
| Flammability | | According to standard UL224 VW-1 | |
| Standard colours | | | Black-White-Red-Yellow-Blue-Green-Transparent |
| Packaging | | | On reels |
| Minimum Shrinking temperature | °C | | > +90 |
| Dielectric strength | KV/mm | | ≥ 15 |
| Tensile strenght | MPA | According to standard ISO37 | 15 |
| Tensile strenght after ageing (7days) | MPA | | 12 |
| Elongation to break | % | According to standard ISO37 | 450 |
| Elongation after heat ageing test | % | 168 hours at 158°C | 400 |
| Heat stock (4 hours at 250°C) | | | No dripping, slipping or cracking |
| Water absorption | % | According to standard ASTM D570 | 0,2 |
| Resistance to fluids | | According to standard ISO 1817; ISO37; MIL-1-23053 | |
| Longitudinal variation | % | | +/-5 |
| Diameters | mm | | from 1.2 to 180 |

• Our products pass all or parts of requirements for the above-mentioned standards. The technical informations written on our datasheets correspond to the most recent knowledges we have on those products, but the user is not exempted to verify the performances in the real particular context of application.