



TERMINALS



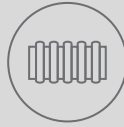
APPLICATORS



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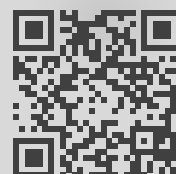
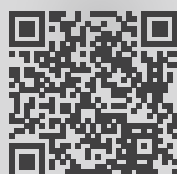
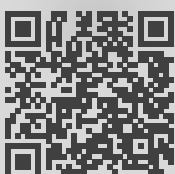
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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- UL 1441
- NF EN ISO 4589
- EN 45545 -2-2013

APPLICATION:

This glass sleeving impregnated with silicone varnish is flexible and compatible with most impregnating varnish systems, it is an ideal thermal and electrical insulation in heaters and other devices with a very high operating temperature.

DESCRIPTION:

Self Closing Fibreglass and Polyester sleeving coated with self-extinguishing and fire resistant special silicone rubber, that guarantees a high degree of thermal insulation and fire protection.

OPERATING TEMPERATURE: -70°C to +200°C (3000 hours)
Peaks at +300°C (1 hour)

ITS MAIN FEATURES ARE:

- Self Closing
- High thermal insulation, heat barrier
- Non fraying
- Total wall thickness: 2mm minimum
- Halogen Free
- Self-extinguishing
- Fire resistant
- Flexible
- Excellent resistance to oils, fluids and aggressive chemical agents
- Resistant to molten steel splashes
- Recommended percentage of overlapping 25% minimum

FIRE PRO SC RW




TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
SMOKE DENSITY (*)	ISO 5659-2	Ds max: 246
GAS TOXICITY (*)	NF X 70-100-1 2006 + NF X 70-100-2 2006	Conventional Toxicity Index ITC: 6,15
OXYGEN INDEX (I.O.)(*)	NF EN ISO 4589-2:1999	29,6
THERMAL OVERCHARGES	20 minutes @ +1090°C	Pass
	15 seconds @ +1640°C	Pass
AGEING RESISTANCE	Simulation of real operating conditions	After the process of accelerated thermal ageing: 7 days @ +225°C There are neither cracks nor deformations to be observed on the surface of silicone rubber coating and values obtained for dielectric strength meet the values required in UL1441
FIRE RESISTANT TEST	30 minutes direct hot air gun flow	Interior temperature:266°C – ΔT:534°C Pass- Wire cables acc. UNI CEI 50264 & 50306 inside the sleeving with no damage and with continuous current.
	30 minutes direct flame exposure at 1000°C	Interior temperature:312°C - ΔT:688°C (Pass- Wire cables acc. UNI CEI 50264 & 50306 inside the sleeving with no damage and with continuous current.
COLD RESISTANCE	UL 1441 (winding test): 1hour @ -70°C	There are neither cracks nor deformations to be observed on the surface of silicone rubber coating.
FIRE BEHAVIOUR	EN 45545-2-2013	R22: Hazard level HL1,HL2 R23: Hazard level HL1, HL2

DIMENSIONS:

REFERENCE	SIZE (mm)
SCPTFRT080	8
SCPTFRT120	12
SCPTFRT160	16
SCPTFRT200	20
SCPTFRT250	25
SCPTFRT320	32
SCPTFRT450**	45
SCPTFRT600**	60

NOTE: Other diameters supplied upon request.
(*)Tests performed at Warrington Fire LAPI
** Under development

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC 60684 sheet 340
- FMVSS 302

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. The sleeving is capable of short-term operation above its thermal classification. Due to its special closing mechanism, it's the ideal product to assembly at the end of the process.

DESCRIPTION:

Woven open sleeve made of monofilament and multifilament polyester yarn. The material possesses unique wraparound qualities allowing easy cable bundling after wire harness assembly. Special and lightweight woven structure.

OPERATING TEMPERATURE: -70°C to +150°C

ITS MAIN FEATURES ARE:

- Recyclable
- Halogen free
- Extra flexible
- Lightweight woven structure
- Good abrasion resistance
- High closing force

Note: Colour tone may vary. This does not affect technical properties of sleeve.

PLAS8

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT		
HEAT RESISTANCE	10 days @ +175°C 3000 hours @ +150°C	Pass Pass		
LONGITUDINAL CHANGE	IEC 60684 – Part 2 Clause 9 4 hours at 175°C	10% maximum		
FLAMMABILITY	FMVSS 302	Self-extinguishing.		
ABRASION RESISTANCE	ISO 6722	Min. 5.000 cycles (φ 20mm)		
COLD RESISTANCE	Bending a low temperature. IEC 60684 – Part 2 Clause 14	No cracking after bending at -70°C		
CHEMICAL RESISTANCE	Simulation of real operating conditions	Fluid	1 hr at 23°C	5 min at 90°C
		Unleaded 98 octane petrol	Pass	----
		Diesel fuel	Pass	----
		Antifreeze - Renault Glaceol RX Type D	Pass	Pass
		Windscreen washer fluid - ad. Pro	Pass	----
		White spirit	Pass	----
		Brake fluid - DOT5	----	Pass
		Motor oil - Elf Competition 15W50ST	----	Pass
		Cold degreaser - Renault 20	----	Pass

PUT UP:

On spools of variable length, depending on the diameter of the sleeving.
In cut lengths.

HANDLING:

No special handling requirements. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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DIMENSIONS:

REFERENCE	DIAMETER 25% Overlap (mm)	STANDARD PACKAGING (m)
PLAS8__040	8	250
PLAS8__070	12	200
PLAS8__100	15	150
PLAS8__140	21	100
PLAS8__200	28	75
PLAS8__260	34	75
PLAS8__320	44	50
PLAS8__440	61	35

__ Colour: **NE**: Black colour with blue tracer line
TA: Orange

NOTE: Other diameters supplied upon request.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC60684 sheet 340
- FMVSS 302
- ISO 6722

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. The sleeving is capable of short-term operation above its thermal classification. Due to its special closing mechanism, it's the ideal product to assembly at the end of the process.

DESCRIPTION:

Woven open sleeve made of monofilament and multifilament polyester fibers. The material possesses unique wraparound qualities allowing easy cable bundling after wire harness assembly. The special woven structure does not allow to see through it the cables inside.

OPERATING TEMPERATURE: -70°C to +150°C
(-94 °F to +302 °F)

ITS MAIN FEATURES ARE:

- Recyclable
- Halogen free
- Extra flexible
- Very good abrasion resistance
- Very high closing force
- Very few dust when cutting

PLAS7

PUT UP:

On spools of variable length, depending on the diameter of the sleeving.
In cut lengths.

HANDLING:

No special handling requirements. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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TECHNICAL CHARACTERISTICS:

Property	Test	Result		
Heat Resistance	10 day @+175°C (+347°F) 3000 hours @ +150°C (+302°F)	Pass Pass		
Longitudinal Change	IEC60684 - Part 2 Clause 9 4 hours at 175°C (+347°F)	10% maximum		
Flammability	FMVSS 302	Self-extinguishing		
Abrasion Resistance	ISO 6722	Min. 15.000 cycles φ 20mm (0,788 in)		
Cold Resistance	Bending a low temperature. IEC 60684 - Part 2 Clause 14	No cracking after bending at -70°C (-94°F)		
Chemical Resistance	Simulation of real operating conditions	Fluid	1 hr at 23°C (73,4°F)	5 min at 90°C (194°F)
		Unleaded 98 octane petrol	Pass	---
		Diesel fuel	Pass	---
		Antifreeze - Renault Glaceol RX Type D	Pass	Pass
		Windscreen washer fluid - ad. Pro	Pass	---
		White spirit	Pass	---
		Brake fluid -DOT5	---	Pass
		Motor Oil - Elf Competition 15W50ST	---	Pass
		Cold degreaser - Renault 20	---	Pass

DIMENSIONS:

Reference	Diameter 25% Overlap		Standard Packaging	
	(mm)	(in)	(m)	(ft)
PLAS7__040	9	(23/64")	250	(820)
PLAS7__070	13	(33/64")	200	(656)
PLAS7__100	16	(5/8")	150	(492)
PLAS7__140	21	(53/64")	100	(328)
PLAS7__170	25	(63/64")	75	(246)
PLAS7__200	29	(1 9/64")	75	(246)
PLAS7__260	35	(1 3/8")	75	(246)
PLAS7__320	44	(1 47/64")	50	(164)
PLAS7__440	61	(1 13/32")	35	(115)

NOTE: Other diameters supplied upon request.
Standard colour (__): NE Black

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

SPECIFICATIONS:

- IEC 60684 sheet 340

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. The sleeving is capable of short-term operation above its thermal classification. Due to its special closing mechanism, it's the ideal product to assembly at the end of the process because is not needed to expand it to pass through connectors or other pieces which could be part of a wire harness.

DESCRIPTION:

Woven open sleeve made of monofilament and multifilament polyester fibers and aluminium foil inside. The material possesses unique wraparound qualities allowing easy cable bundling after wire harness assembly.

The special woven structure does not allow to see through it the cables inside and the rate of filling uses to be between 25% - 35% overlap.

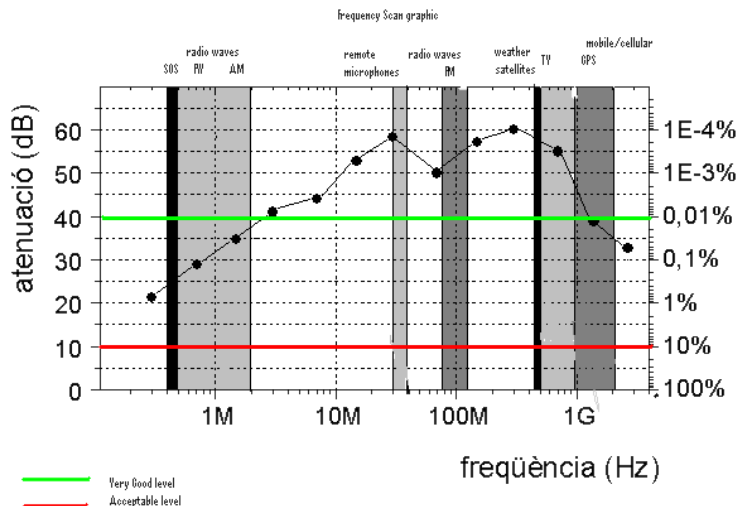
OPERATING TEMPERATURE: -70°C to +150°C

ITS MAIN FEATURES ARE:

- Due to its special construction provides a combination of different properties: electromagnetic shielding, very high closing force and very good abrasion resistance.
- Halogen free
- Flexible
- When material is supplied in coils, customer should take care when cutting:
 - If manual cutting: sharpened scissors must be used to prevent fraying or irregular cuts.
 - If automatic machine cutting: well adjusted guillotine cut should be used to prevent fraying or irregular cuts guillotine cutting.

Note: Colour tone may vary. This does not affect technical properties of sleeve.

PLAI7 AS



PUT UP:

On spools of variable length, depending on the diameter of the sleeving. In cut lengths.

HANDLING:

No special handling requirements. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
SMOKE DENSITY	NF X 10-702-2 1995 NF X 10-702-1 1995	VOF4: 147,5 Dm: 61,33
GAS TOXICITY	NF X 70-100-1 2006 NF X 70-100-2 2006	Conventional Toxicity Index ITC: 8,87
OXYGEN INDEX	NF EN ISO 4589-2:1999	IO: 38%
SMOKE CLASS	NF F 16-101	Smoke Index IF:14,40 Smoke Class: F1 Reaction to fire class: I2

DIMENSION

REFERENCE	ORIENTATIVE RANGE OF APPLICATION 25% OVERLAP (mm)	STANDARD PACKAGING (m)
PLAI7AS060	10	200
PLAI7AS090	12	125
PLAI7AS140	21	75
PLAI7AS200	28	50
PLAI7AS260	34	50
PLAI7AS320	44	25

NOTE: Other diameters supplied upon request.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC 60684 sheet 340

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. The sleeving is capable of short-term operation above its thermal classification. Due to its special closing mechanism, it's the ideal product to assembly at the end of the process.

DESCRIPTION:

Woven open sleeve, with convoluted surface, made of monofilament and multifilament polyester fibres. The material possesses unique wraparound qualities allowing easy cable bundling after wire and harness assembly.

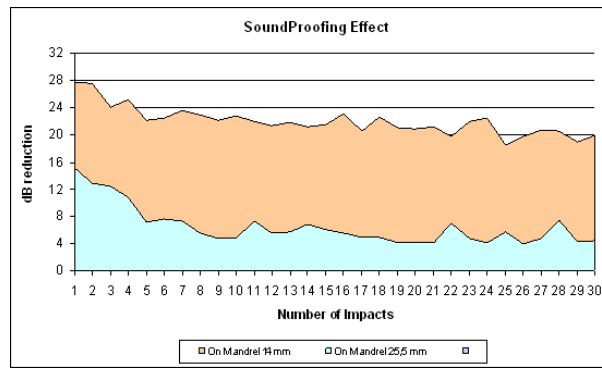
This is a flexible version of the Self Closing products.

OPERATING TEMPERATURE: -70°C to +150°C

ITS MAIN FEATURES ARE:

- Recyclable
- Halogen Free
- Very high closing force
- Ultra flexible
- Very few dust when cutting

PLAF1



TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT																											
HEAT RESISTANCE	10 days at +175°C 3,000 hours at +150°C	Pass Pass																											
FLAMMABILITY	FMV SS302	Self-extinguishing																											
COLD RESISTANCE	Bending at low temperature. IEC 60684 – Part 2 Clause 14	No cracking after bending at -70°C																											
LONGITUDINAL CHANGE	IEC 60684 – Part 2 Clause 9 4 hours at +175°C	10% maximum																											
NOISE REDUCTION	Comparison in noise generated by striking metallic mandrel inside sleeving 30 times successively against anvil and striking unprotected mandrel.	See graph attached.																											
CHEMICAL RESISTANCE	Simulation of real operating conditions	In general good resistance to aggressive chemical agents.																											
		<table border="1"> <thead> <tr> <th>Fluid</th> <th>1 hr at 23°C</th> <th>5 min at 90°C</th> </tr> </thead> <tbody> <tr> <td>Unleaded 98 octane petrol</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>Diesel fuel</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>Antifreeze - Renault Glaceol RX Type D</td> <td>Pass</td> <td>Pass</td> </tr> <tr> <td>Windscreen washer fluid - ad. Pro</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>White spirit</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>Brake fluid - DOTS</td> <td>----</td> <td>Pass</td> </tr> <tr> <td>Motor oil - Elf Competition 15W50ST</td> <td>----</td> <td>Pass</td> </tr> <tr> <td>Cold degreaser - Renault 20</td> <td>----</td> <td>Pass</td> </tr> </tbody> </table>	Fluid	1 hr at 23°C	5 min at 90°C	Unleaded 98 octane petrol	Pass	----	Diesel fuel	Pass	----	Antifreeze - Renault Glaceol RX Type D	Pass	Pass	Windscreen washer fluid - ad. Pro	Pass	----	White spirit	Pass	----	Brake fluid - DOTS	----	Pass	Motor oil - Elf Competition 15W50ST	----	Pass	Cold degreaser - Renault 20	----	Pass
		Fluid	1 hr at 23°C	5 min at 90°C																									
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		White spirit	Pass	----																									
		Brake fluid - DOTS	----	Pass																									
Motor oil - Elf Competition 15W50ST	----	Pass																											
Cold degreaser - Renault 20	----	Pass																											

DIMENSIONS:

REFERENCE	DIAMETER 25% overlap	STANDARD PACKAGING (m)
PLAF1NE040	8	250
PLAF1NE070	12	200
PLAF1NE100	15	150
PLAF1NE140	21	100
PLAF1NE200	28	75
PLAF1NE260	34	75
PLAF1NE320	44	50
PLAF1NE440	61	35

NOTE: Other diameters supplied upon request.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

· IEC60684 sheet 340

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. The sleeving is capable of short-term operation above its thermal classification. Due to its special closing mechanism, it's the ideal product to assembly at the end of the process.

DESCRIPTION:

Woven open sleeve made of monofilament and multifilament polyester fibers with an inside adhesive tape along its length. The material possesses unique wraparound qualities allowing easy cable bundling after wire harness assembly. The special woven structure does not allow to see through it the cables inside.

OPERATING TEMPERATURE: -70°C to +150°C

ITS MAIN FEATURES ARE:

- Recyclable
- Halogen free
- Extra flexible
- Very few dust when cutting
- Very good abrasion resistance
- Very high closing force
- Adhesive tape inside

PLAD8

PUT UP:

On spools of variable length, depending on the diameter of the sleeving.
In cut lengths.

HANDLING:

No special handling requirements. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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TECHNICAL CHARACTERISTICS:




Property	Test	Result		
Heat Resistance	10 days @+175°C 3000 hours @ +150°C	Pass Pass		
Longitudinal Change	IEC60684 - Part 2 Clause 9 4 hours at +175°C	10% maximum		
Flammability	FMVSS 302	Self-extinguishing		
Abrasion Resistance	ISO 6722	Min. 5.000 cycles (φ 20mm)		
Cold Resistance	Bending at low temperature. IEC60684 - Part 2 Clause 14	No cracking after bending at -70°C		
Chemical Resistance	Simulation of real operating conditions	Fluid	1 hr at 23°C	5 min at 90°C
		Unleaded 98 octane petrol	Pass	---
		Diesel fuel	Pass	---
		Antifreeze - Renault Glaceol RX Type D	Pass	Pass
		Windscreen washer fluid - ad. Pro	Pass	---
		White spirit	Pass	---
		Brake fluid -DOT5	---	Pass
		Motor Oil - Elf Competition 15W50ST	---	Pass
		Cold degreaser - Renault 20	---	Pass

DIMENSIONS:

Reference	Diameter 25% Overlap (mm)	Standard Packaging (m)
PLAD8__070	7	250
PLAD8__090	9	200
PLAD8__120	12	200
PLAD8__160	16	125
PLAD8__180	18	100
PLAD8__220	22	90
PLAD8__250	25	75
PLAD8__310	31	75
PLAD8__440	44	50

NOTE: Other diameters supplied upon request.

Standard colour (__): NE Black color with blue tracer line;
TA Orange

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC 60684

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. Due to its good thermal resistance this product could withstand higher working temperatures. Because of its expandability the product allows the assembly of jacket bunches and sets of wires of different diameters within the same sleeving and is very easy to mount.

DESCRIPTION:

Braided sleeving composed of monofilament polyester and textured and non-textured polyester multifilament.

Due to its composition of the yarns this sleeving is able to increase in diameter up to three times while maintaining a high degree of surface coverage in the whole range of expansion so facilitating the jacketing of cables, etc.

Due to its resilience it recovers quickly to its initial diameter. It prevents or deadens noise from unprotected cables touching each other or other surfaces.

OPERATING TEMPERATURE: -70°C to +150°C

WALL THICKNESS: 2,0 mm

EXPANSION RATIO: 1 to 3 approx.

ITS MAIN FEATURES ARE:

- Excellent sound adsorption
- Good abrasion resistance
- Self-extinguishing
- Excellent chemical resistance
- Halogen free

Note: Colour tone may vary. This does not affect technical properties of sleeve.

PERIFLEX PEPO

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT		
THERMAL OVERCHARGE AND AGEING RESISTANCE	Simulation of real operating conditions	Good resistance to thermal overcharges. Maintains its properties after accelerated thermal ageing: 10 days at +175°C		
FLAMMABILITY	FMV SS302	Self-extinguishing		
COLD RESISTANCE	Bending at low temperature. IEC 60684 – Part 2 Clause 14	No cracking after bending at -70°C		
CHEMICAL RESISTANCE	Simulation of real operating conditions	In general good resistance to aggressive chemical agents.		
		Fluid	1 hr at 23°C	5 min at 90°C
		Unleaded 98 octane petrol	Pass	----
		Diesel fuel	Pass	----
		Antifreeze - Renault Glaceol RX Type D	Pass	Pass
		Windscreen washer fluid - ad. Pro	Pass	----
		White spirit	Pass	----
		Brake fluid - DOTS	----	Pass
		Motor oil - Elf Competition 15W50ST	----	Pass
Cold degreaser - Renault 20	----	Pass		

PUT UP:

On coils of variable length, depending on the diameter of the sleeving. In cut lengths.

HANDLING:

No special handling requirements. For product safety data and product disposal advice, see separate Safety Data Sheet.




NOTES:

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DIMENSIONS:

REFERENCE	SIZE RANGE			STANDARD PACKAGING (m)	
	Black / Grey	Minimum	Nominal		Maximum (*)
F245055O06		2	6	14	200
F325055O14		6	14	22	200
F445055O18		10	18	32	100
F645055O22		12	22	50	100
F965055O60		30	60	90	100
F125055O80		40	80	120	100

NOTE: As the inside diameter increases towards the maximum expansion, the sleeving decreases in length.
Other diameters supplied upon request.
(*) Maximum expansion can be greater than value stated. This is minimum guaranteed expansion.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

SPECIFICATIONS:

- IEC 60684

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components and diminution of noise caused by vibrations. Because of its expandability the product allows the jacketing of bunches and sets of wires of different diameters within the same sleeving and is very easy to mount.

DESCRIPTION:

Braided sleeving composed of monofilament polyamide 6.6 and textured and non-textured polyester multifilament.

Due to its special composition and disposition of the yarns this sleeving is able to increase in diameter up to three times while maintaining a high degree of surface coverage in the whole range of expansion so facilitating the jacketing of cables, etc.

Due to its resilience it recovers quickly to its initial diameter. It prevents or deadens noise from unprotected cables touching each other or other surfaces.

OPERATING TEMPERATURE: -70°C to +150°C

WALL THICKNESS: 2,0 mm

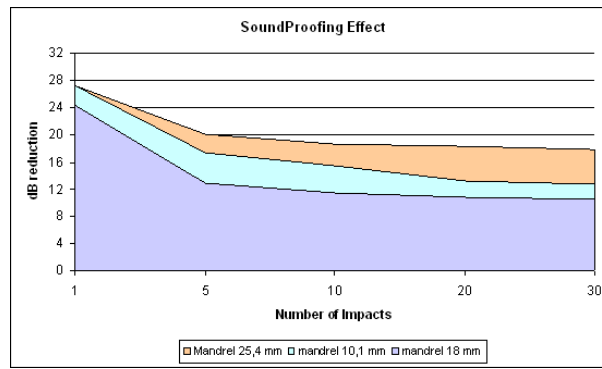
EXPANSION RATIO: 1 to 3 approx.

ITS MAIN FEATURES ARE:

- Excellent sound adsorption
- Good abrasion resistance
- Self-extinguishing
- Excellent chemical resistance
- Halogen free

NOTE: Colour tone may vary. This does not affect technical properties of sleeve.

PERIFLEX NEPO






TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT																											
THERMAL OVERCHARGE AND AGEING RESISTANCE	Simulation of real operating conditions	Good resistance to thermal overcharges. Maintains its properties after accelerated thermal ageing: 10 days at 175°C																											
FLAMMABILITY	FMV SS302	Self-extinguishing																											
COLD RESISTANCE	Bending at low temperature. IEC 60684 – Part 2 Clause 14	No cracking after bending at -70°C																											
NOISE REDUCTION	Comparison on in noise generated by striking metallic mandrel inside sleeving 30 times successively against anvil and striking unprotected mandrel.	See graph attached.																											
CHEMICAL RESISTANCE	Simulation of real operating conditions	In general good resistance to aggressive chemical agents.																											
		<table border="1"> <thead> <tr> <th>Fluid</th> <th>1 hr at 23°C</th> <th>5 min at 90°C</th> </tr> </thead> <tbody> <tr> <td>Unleaded 98 octane petrol</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>Diesel fuel</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>Antifreeze - Renault Glaceol RX Type D</td> <td>Pass</td> <td>Pass</td> </tr> <tr> <td>Windscreen washer fluid - ad. Pro</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>White spirit</td> <td>Pass</td> <td>----</td> </tr> <tr> <td>Brake fluid - DOTS</td> <td>----</td> <td>Pass</td> </tr> <tr> <td>Motor oil - Elf Competition 15W50ST</td> <td>----</td> <td>Pass</td> </tr> <tr> <td>Cold degreaser - Renault 20</td> <td>----</td> <td>Pass</td> </tr> </tbody> </table>	Fluid	1 hr at 23°C	5 min at 90°C	Unleaded 98 octane petrol	Pass	----	Diesel fuel	Pass	----	Antifreeze - Renault Glaceol RX Type D	Pass	Pass	Windscreen washer fluid - ad. Pro	Pass	----	White spirit	Pass	----	Brake fluid - DOTS	----	Pass	Motor oil - Elf Competition 15W50ST	----	Pass	Cold degreaser - Renault 20	----	Pass
		Fluid	1 hr at 23°C	5 min at 90°C																									
		Unleaded 98 octane petrol	Pass	----																									
		Diesel fuel	Pass	----																									
		Antifreeze - Renault Glaceol RX Type D	Pass	Pass																									
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		White spirit	Pass	----																									
		Brake fluid - DOTS	----	Pass																									
Motor oil - Elf Competition 15W50ST	----	Pass																											
Cold degreaser - Renault 20	----	Pass																											

DIMENSIONS:

REFERENCE	SIZE RANGE			STANDARD PACKAGING (m)
	Minimum	Nominal	Maximum(*)	
E165055O04	2	4	9	200
E245055O06	2	6	14	200
E325055O14	6	14	22	200
E445055O18	10	18	32	100
E645055O22	12	22	50	100
E125055O50	30	50	90	50
E125055O80	40	80	120	50

NOTE: As the inside diameter increases towards the maximum expansion, the sleeving decreases in length.
Other diameters supplied upon request.
(*)Maximum expansion can be greater than value stated. This is minimum guaranteed expansion.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



PERIFLEX
END FIT PS
(Velcro or adhesive tape)

SPECIFICATIONS:

•IEC 60684 sheet 340

APPLICATION:

This tough abrasion resistance sleeving has good flexibility. Electrical properties are maintained after flexing. The sleeving is capable of short-term operation above its thermal classification. Due to its special closing mechanism, it's the ideal product for assembly at the end of the process.

DESCRIPTION:

Braided wide tape of polyester yarn with Velcro or paper backed adhesive tape along edge to allow product to be formed into a tube or wrapped around bundles of cables and closed along the edge. Product mainly meant for applications of mechanical protection and noise reduction.

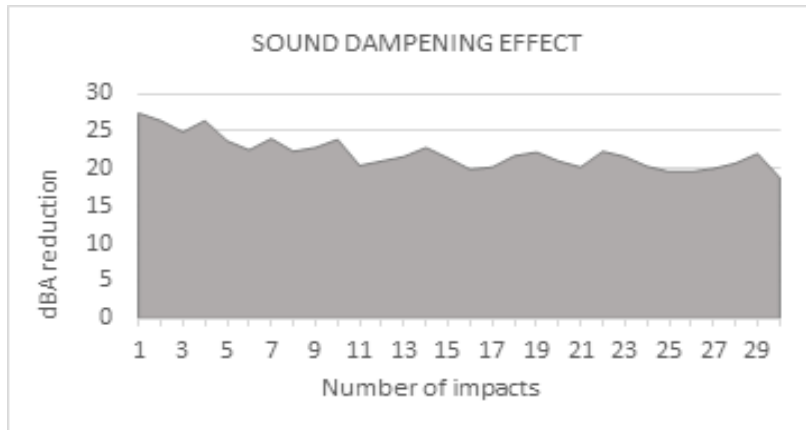
OPERATING TEMPERATURE: -70°C to +150°C

ITS MAIN FEATURES ARE:

- Halogen free
- Good sound dampening properties
- Very good abrasion resistance
- Self extinguishing
- Overlap 15 ±3 mm

Note: Colour tone may vary. This does not affect technical properties of sleeve.

PERIFLEX END FIT PS (Velcro or adhesive tape)



TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT		
HEAT RESISTANCE	Simulation of real operating conditions	Good resistance to thermal overcharges. Maintains its properties after accelerated thermal ageing 10 days at 175°C		
FLAMMABILITY	FMVSS 302	Self Extinguishing. Flame extinguishing when source of ignition removed.		
COLD RESISTANCE	Bending at low temperature IEC60684 Part 2 Clause 14	No cracking after bending at -70°C		
ABRASION RESISTANCE	Flat anvil, 0,45 mm piano wire abrader, 1 kg weight, 20 mm amplitude, 150 cycles/min.	30,000 cycles minimum		
LONGITUDINAL CHANGE	IEC 60684 Part 2 Clause 9 4 hours at 175°C ±2C	10% max.		
NOISE REDUCTION	Comparison in noise generated by striking metallic mandrel inside sleeving 30 times successively against anvil and striking unprotected mandrel	See graph attached		
CHEMICAL RESISTANCE	Simulation of real operating conditions	Fluid	1 hr at 23°C	5 min at 90°C
		Unleaded 98 octane petrol	Pass	---
		Diesel Fuel	Pass	---
		Antifreeze - Renault Glaceol RX Tvoe D	Pass	Pass
		Windscreen washer fluid – ad. Pro	Pass	---
		White spirit	Pass	---
		Brake fluid - DOT5	---	Pass
		Motor oil - Elf Competition 15W50ST	---	Pass
Cold degreaser - Renault 20	---	Pass		

DIMENSIONS:

Reference	Size (mm)	Width (mm)	Wall Thickness (mm)	Standard Packaging (m)
Z51__55S12	12	50 ±5	2,2 ± 0,1	100
Z77__55S20	20	80 ±8	2,2 ± 0,1	50
Z95__55S25	25	100 ±8	2,2 ± 0,1	50
Z11__55S30	30	120 ±10	2,2 ± 0,1	50
Z21__55S32	32	130 ±10	2,2 ± 0,1	50
Z27__55S40	40	140 ±15	2,2 ± 0,1	50

(_) VE: Velcro
AD: Adhesive

NOTE: Standard Color: Black
Other diameters supplied upon request.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC 60684 sheet 340

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. Because of its expandability and treatment the product allows to assemble and jacket bunches and set of wires of different diameters within the same sleeving and is very easy to mount and cut.

DESCRIPTION:

Braided sleeving made of multifilament polyester intended for thermal insulation and mechanical protection. Its main characteristic is the special form of braiding, which allows increasing the interior diameter of the sleeving considerably, the sleeving at the same time contracting in length.

Due to the special disposition of the yarns the coverage of this sleeving is almost 100% in all of its expansion range. This sleeving makes no noise during its handling in comparison to the polyester monofilament sleeving, because of its composition and disposition of the yarns. Extremely tough and light-weight structure.

OPERATING TEMPERATURE: -70°C to +150°C

ITS MAIN FEATURES ARE:

- Halogen free.
- Excellent abrasion resistance.
- Good chemical resistance.
- Self-extinguishing.

NOTE: Colour tone may vary. This does not affect technical properties of sleeve.

PERIFLEX DURASLEEVE

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT		
HEAT RESISTANCE	Simulation of real operating conditions	Good resistance to thermal overcharges. Maintains its properties after accelerated thermal ageing test, 10 days at 175°C.		
LONGITUDINAL CHANGE	IEC 60684 – Part 2 Clause 9 4 hours at 175°C ± 2°C.	10% max.		
FLAMMABILITY	FMW SS302	Self-extinguishing.		
COLD RESISTANCE	Bending at low temperature. IEC 60684 Part 2 Clause 14	No cracking after bending at -70°C.		
CHEMICAL RESISTANCE	Simulation of real operating conditions	Fluid	1 hr at 23°C	5 min at 90°C
		Unleaded 98 octane petrol	Pass	----
		Diesel fuel	Pass	----
		Antifreeze - Renault Glaceol RX Type D	Pass	Pass
		Windscreen washer fluid - ad. Pro	Pass	----
		White spirit	Pass	----
		Brake fluid - DOT5	----	Pass
		Motor oil - Elf Competition 15W50ST	----	Pass
		Cold degreaser - Renault 20	----	Pass

PUT UP:

On spools of variable length, depending on the diameter of the sleeving.
In cut lengths.

HANDLING:

No special handling requirements. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:




This information and data is believed to be accurate and reliable. We place at your disposal the technical information necessary for the correct use of our products and offer the possibility of simulating in our laboratory the conditions of many applications, in order to advise on the suitability of our products. As conditions and methods of use are beyond our control, the user must confirm suitability before adopting our products for commercial use. We reserve the right to modify characteristics with the aim of improving the product and adapting it to the requirements of the market.

DIMENSIONS:

REFERENCE	SIZE RANGE			N° OF ENDS	WALL THICKNESS (mm)
	Minimum	Nominal	Maximum (*)		
DURA1__050	3,5	5	6	1	0,50 ± 0,15
DURA1__061	4	6	8	1	0,50 ± 0,15
DURA1__065	4,5	6,5	8,5	1	0,50 ± 0,15
DURA1__080	6	8	12	2	0,50 ± 0,15
DURA1__100	8	10	16	2	0,50 ± 0,15
DURA1__120	9	12	18	2	0,50 ± 0,15
DURA1__130	9	13	18	2	0,50 ± 0,15
DURA1__150	11	15	24	2	0,50 ± 0,15
DURA1__200	14	20	30	2	0,50 ± 0,15
DURA1__250	20	25	37	2	0,50 ± 0,15
DURA1__300	22	30	40	2	0,65± 0,15
DURA1__400	28	40	50	3	0,65± 0,15

--: NE black
DA black with white tracer

NOTE: On request we supply other diameters.
(*) Maximum expansion can be greater than value stated. This is minimum guaranteed expansion.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC 60684 sheet 340

APPLICATION:

Mechanical and thermal protection of electrical conductors and other components. Because of its expandability and treatment the product allows to assemble and jacket bunches and set of wires of different diameters within the same sleeving and is very easy to mount and cut.

DESCRIPTION:

Flexible sleeving made of textured polyamide yarn intended for thermal insulation and mechanical protection. Due to its dense woven construction provides 100% coverage and high mechanical protection.

Extremely tough and light-weight structure.

OPERATING TEMPERATURE: -70°C to +125°C

ITS MAIN FEATURES ARE:

- Excellent abrasion resistance.
- Good chemical resistance.
- Self-extinguishing.
- Halogen free
- High coverage

NOTE: Colour tone may vary. This does not affect technical properties of sleeve.

PERIFLEX DURA HA

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT		
HEAT RESISTANCE	Simulation of real operating conditions	Good resistance to thermal overcharges. Maintains its properties after accelerated thermal ageing test, 10 days at 125°C.		
LONGITUDINAL CHANGE	IEC 60684 – Part 2 Clause 9 4 hours at 175°C ± 2°C.	10% max.		
COLD RESISTANCE	Bending at low temperature. IEC 60684 Part 2 Clause 14	No cracking after bending at -70°C.		
ABRASION RES	SAE ARP 1536	Excellent resistance > 1.800. 000 cycles		
CHEMICAL RESISTANCE	Simulation of real operating conditions	Fluid	1 hr at 23°C	5 min at 90°C
		Unleaded 98 octane petrol	Pass	----
		Diesel fuel	Pass	----
		Antifreeze - Renault Glaceol RX Type D	Pass	Pass
		Windscreen washer fluid - ad. Pro	Pass	----
		White spirit	Pass	----
		Brake fluid - DOT5	----	Pass
		Motor oil - Elf Competition 15W50ST	----	Pass
		Cold degreaser - Renault 20	----	Pass

DIMENSIONS:

REFERENCE	Nominal diameter (mm)	Bore tolerance (mm)	Wall thickness (mm)	Packaging (m)
DURA1HA080	8	+ 2	1 ± 0,2	200
DURA1HA130	13	+ 2	1 ± 0,2	200
DURA1HA160	16	+ 2	1 ± 0,2	150
DURA1HA190	19	+ 2	1 ± 0,2	100
DURA1HA220	22	+ 2	1 ± 0,2	100
DURA1HA250	25	+ 2	1 ± 0,2	100
DURA1HA320	32	+ 2	1 ± 0,2	50
DURA1HA380	38	+ 2	1 ± 0,2	50
DURA1HA450	45	+ 2	1 ± 0,2	50
DURA1HA510	51	+ 2	1 ± 0,2	100
DURA1HA570	57	+ 2	1 ± 0,2	100
DURA1HA640	64	+ 2	1 ± 0,2	100
DURA1HA700	70	+ 2	1 ± 0,2	100
DURA1HA760	76	+ 2	1 ± 0,2	100

Colour: Black

NOTE: On request we supply other diameters.

PUT UP:



On spools of variable length, depending on the diameter of the sleeving.
In cut lengths.

HANDLING:

No special handling requirements. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

PATENTED



SPECIFICATIONS:

- IEC 60684 sheet 341
- UL 1441

APPLICATION:

Thermal insulation and mechanical protection for harnesses, hydraulic and fuel conducts submitted to high temperatures.

Also ideal for insulation of exhaust system components, E.G.R., which have to be maintained at high extremely temperatures.

DESCRIPTION:

This sleeving is a patented combination of silica knitbraid and a special impregnant.

The material possesses unique expansion properties: expands near 50% and fits snugly on tight bends. Exceptional retention of mechanical properties at extreme temperatures. Air space electrical insulation only.

OPERATING TEMPERATURE: -70°C to +1100°C
Peaks at +1350°C

ITS MAIN FEATURES ARE:

- Halogen Free
- Good fraying resistance
- Excellent chemical resistance
- Snug fit on tight bends
- Short term temperatures: 7 days at 1100°C and 16 hours at 1200°C

SUPERSLEEVE 1100

TYPICAL TENSILE STRENGTH:

	Initial	Aged 16 h at 1200°C	% of loss
20 mm silica knitbraid	57 kg	10 kg	82%
20 mm Supersleeve 1100	125 kg	56 kg	55%

Products made with silica yarns lose tensile strength progressively at elevated temperatures and this loss is significantly delayed in Supersleeve versions. After 16 h at 1200°C, a typical silica knitbraid loses more than 80% of its initial strength. The equivalent Supersleeve 1100 loses only 55% after this temperature test and is still as strong as the initial untreated silica knitbraid.

PUT UP:

On coils of variable length, depending on the diameter of the sleeving. On request in cut lengths.

HANDLING:

Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

This information and data is believed to be accurate and reliable. We place at your disposal the technical information necessary for the correct use of our products and offer the possibility of simulating in our laboratory the conditions of many applications, in order to advise on the suitability of our products. As conditions and methods of use are beyond our control, the user must confirm suitability before adopting our products for commercial use. We reserve the right to modify characteristics with the aim of improving the product and adapting it to the requirements of the market.

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
BENDING AFTER HEATING	IEC 60684 Part 2 Clause 13 After 48 hours at 1100°C	No cracking
BENDING AT LOW TEMPERATURE	EC 60684 Part 2 Clause 14 At -70°C	No cracking.
CHEMICAL RESISTANCE	Simulation of real operating conditions	Excellent resistance to solvents and varnishes.
FLAMMABILITY	IEC 60684 Part 2 Clause 26 Method B vertical with wire. UL 1441 VW-1	Will not ignite. Will not ignite.
THERMAL INSULATION	SAE J2495 Radiant heat temperature inside the sleeve 500°C	Outside Surface temperature: 327°C ΔT: 173°C Thermal Efficiency: 34,60%


NOTE: SAE J2495, the scope of this test is to measure the percentage of thermal efficiency of materials in sleeve form used to contain heat or insulate around a hot component.

DIMENSIONS:

REFERENCE	NOMINAL BORE (mm)	ACTUAL BORE (mm)	EXPANDED BORE (mm)	WALL THICKNESS (mm)	STANDARD PACKAGING
QZI10__040	4	3,3	7	0,6 – 0,8	200
QZI10__060	6	5	9	0,6 – 0,8	200
QZI10__080	8	6,5	12	0,6 – 0,8	200
QZI10__100	10	8	15	1,1 – 1,2	150
QZI10__120	12	9,5	20	1,1 – 1,2	150
QZI10__150	15	12,5	25	1,1 – 1,2	100
QZI10__180	18	14	30	1,1 – 1,2	100
QZI10__200	20	16	35	1,1 – 1,2	100
QZI10__250	25	20	45	1,3 – 1,5	50
QZI10__350	35	25	55	1,3 – 1,5	50
QZI10__450	45	30	60	1,3 – 1,5	25

-- NA Natural
NE Black

NOTE: As the inside diameter is coming closer to the expanded bore, the sleeving shrinks in length.
Larger sizes and thicker wall versions available.
Other diameters supplied upon request.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC 60684 sheet 341
- UL 1441

APPLICATION:

Thermal insulation and mechanical protection for harnesses, hydraulic and fuel conduits submitted to high temperatures.

Also ideal for insulation of exhaust system components, E.G.R., which have to be maintained at high temperatures.

DESCRIPTION:

This sleeving is a patented combination of fiberglass braided sleeving and a special impregnant.

The material possesses expansion properties: expands near 50%. Exceptional retention of mechanical properties at elevated temperatures. Air space electrical insulation only.

Products made with glass yarns lose tensile strength progressively at elevated temperatures and this loss is significantly delayed in Supersleeve versions.

OPERATING TEMPERATURE: -70°C to +650°C
Peaks at +750°C (1 hour)

ITS MAIN FEATURES ARE:

- Halogen Free
- Good fraying resistance
- Excellent chemical resistance
- Snug fit on tight bends
- Short term temperatures: 7 days at 600°C and 16 hours at 700°C

Note: Colour tone may vary. This does not affect technical properties of sleeve.

SUPERSLEEVE 600 B

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
BENDING AFTER HEATING	IEC 60684 Part 2 Clause 13 After 90 hours at +600°C	No cracking
BENDING AT LOW TEMPERATURE	EC 60684 Part 2 Clause 14 4 hours at -70°C	No cracking.
FLAMMABILITY	IEC 60684 Part 2 Clause 26 Method B vertical with wire.	Will not ignite.
	UL 1441 VW-1	Will not ignite.
CHEMICAL RESISTANCE	Simulation of real operating conditions	Excellent resistance to solvents and varnishes.
THERMAL INSULATION	SAE J2495 Radiant heat temperature inside the sleeve 500°C	Outside Surface temperature: 325°C ΔT: 175°C Thermal Efficiency: 35%

PUT UP:

On spools of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:

Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:




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DIMENSIONS:

REFERENCE	NOMINAL BORE (mm)	ACTUAL BORE (mm)	EXPANDED BORE (mm)	WALL THICKNESS (mm)	STANDARD PACKAGING (m)
VZI10 __ 100	10	8,0	15	DNA	200
VZI10 __ 120	12	9,5	20	DNA	100
VZI10 __ 150	15	12,5	25	DNA	100
VZI10 __ 180	18	14,0	30	DNA	100
VZI10 __ 200	20	16,0	35	1,0 - 1,2	50
VZI10 __ 250	25	20,0	45	1,0 - 1,2	50
VZI10 __ 300	30	25,0	60	1,0 - 1,2	50

-- NA Natural
NE Black

NOTE: DNA: data non available
Standard color: Natural
Other diameters supplied upon request.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

PATENTED



SPECIFICATIONS:

- IEC 60684 sheet 341
- UL 1441

APPLICATION:

Thermal insulation and mechanical protection for harnesses, hydraulic and fuel conducts submitted to high temperatures.

Also ideal for insulation of exhaust system components, E.G.R., which have to be maintained at high temperatures.

DESCRIPTION:

This sleeving is a patented combination of glass knitbraid and a special impregnant.

The material possesses unique expansion properties: expands near 50% and fits snugly on tight bends. Exceptional retention of mechanical properties at elevated temperatures. Air space electrical insulation only.

OPERATING TEMPERATURE: -70°C to +650°C
Peaks at +750°C

ITS MAIN FEATURES ARE:

- Halogen Free
- Good fraying resistance
- Excellent chemical resistance
- Snug fit on tight bends
- Short term temperatures: 7 days at 600°C and 16 hours at 700°C

NOTE: Colour tone may vary. This does not affect technical properties of sleeve.

SUPERSLEEVE 600 EXPANDABLE

TYPICAL TENSILE STRENGTH:

	Initial	After 400 h at 400°C	After 90 h at 600°C
6 mm glass knitbraid	49 kg	11 kg	4,5 kg
6 mm Supersleeve 600 exp.	49 kg	41 kg	22 kg

Products made with glass yarns lose tensile strength progressively at elevated temperatures and this loss is significantly delayed in Supersleeve versions. After 90 h at 600°C, a typical glass knitbraid loses more than 90% of its initial strength. The equivalent Supersleeve 600 expandable loses only 55% after this temperature test.

PUT UP:

On spools of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:

Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
BENDING AFTER HEATING	IEC 60684 Part 2 Clause 13 After 90 hours at 600°C	No cracking
BENDING AT LOW TEMPERATURE	EC 60684 Part 2 Clause 14 At -70°C	No cracking.
CHEMICAL RESISTANCE	Simulation of real operating conditions	Excellent resistance to solvents and varnishes.
FLAMMABILITY	IEC 60684 Part 2 Clause 26 Method B vertical with wire. UL 1441 VW-1	Will not ignite. Will not ignite.
THERMAL INSULATION	SAE J2495 Radiant heat temperature inside the sleeve 500°C	Outside Surface temperature: 303°C ΔT: 197°C Thermal Efficiency: 39,40%




NOTE: SAE J2495, the scope of this test is to measure the percentage of thermal efficiency of materials in sleeve form used to contain heat or insulate around a hot component.

DIMENSIONS:

REFERENCE	NOMINAL BORE (mm)	ACTUAL BORE (mm)	EXPANDED BORE (mm)	WALL THICKNESS (mm)	STANDARD PACKAGING
MZX10__200	20	15	45	1,3 – 1,5	50
MZX10__250	25	20	55	1,3 – 1,5	50
MZX10__300	30	25	60	1,3 – 1,5	50

-- NA Natural
NE Black

NOTE: As the inside diameter is coming closer to the expanded bore, the sleeving shrinks in length.
Larger sizes and thicker wall versions available.
Other diameters supplied upon request.

 RELATS HQ	 +34 938 627 510	 relatshq@relats.com
RELATS UK	+44 1495 271 161	relatsuk@relats.com
RELATS CHINA	+86 512 8155 77 66	relatschina@relats.com
RELATS MEXICO	+52 472 748 91 00	relatsmexico@relats.com
RELATS MAROC	+212 539 398 850	relatsmaroc@relats.com

SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

PATENTED



SPECIFICATIONS:

- IEC 60684 sheet 341
- UL 1441

APPLICATION:

Thermal insulation and mechanical protection for harnesses, hydraulic and fuel conducts submitted to high temperatures.

Also ideal for insulation of exhaust system components, E.G.R., which have to be maintained at high temperatures.

DESCRIPTION:

This sleeving is a patented combination of glass knitbraid and a special impregnant.

The material possesses unique expansion properties: expands near 50% and fits snugly on tight bends. Exceptional retention of mechanical properties at elevated temperatures. Air space electrical insulation only.

OPERATING TEMPERATURE: -70°C to +650°C
Peaks at +750°C

ITS MAIN FEATURES ARE:

- Halogen Free
- Good fraying resistance
- Excellent chemical resistance
- Snug fit on tight bends
- Short term temperatures: 7 days at 600°C and 16 hours at 700°C

Note: Colour tone may vary. This does not affect technical properties of sleeve.

SUPERSLEEVE 600

TYPICAL TENSILE STRENGTH:

	Initial	Aged 16 h at 700°C	% of loss
25 mm glass knitbraid	169,5 kg	11,7 kg	93%
25 mm Supersleeve 600	165 kg	72,5 kg	55%

Products made with glass yarns lose tensile strength progressively at elevated temperatures and this loss is significantly delayed in Supersleeve versions. After 16 h at 700°C, a typical glass knitbraid loses more than 90% of its initial strength. The equivalent Supersleeve 600 loses only 55% after this temperature test.

PUT UP:

On spools of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:

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NOTES:

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TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
BENDING AFTER HEATING	IEC 60684 Part 2 Clause 13 After 90 hours at 600°C	No cracking
BENDING AT LOW TEMPERATURE	EC 60684 Part 2 Clause 14 At -70°C	No cracking.
CHEMICAL RESISTANCE	Simulation of real operating conditions	Excellent resistance to solvents and varnishes.
FLAMMABILITY	IEC 60684 Part 2 Clause 26 Method B vertical with wire. UL 1441 VW-1	Will not ignite. Will not ignite.
THERMAL INSULATION	SAE J2495 Radiant heat temperature inside the sleeve 500°C	Outside Surface temperature: 340°C ΔT: 160°C Thermal Efficiency: 32%




NOTE: SAE J2495, the scope of this test is to measure the percentage of thermal efficiency of materials in sleeve form used to contain heat or insulate around a hot component.

DIMENSIONS:


REFERENCE	NOMINAL BORE (mm)	ACTUAL BORE (mm)	EXPANDED BORE (mm)	WALL THICKNESS (mm)	STANDARD PACKAGING
MZI10__040	4	3,3	7	0,6 – 0,8	200
MZI10__060	6	5	9	0,6 – 0,8	200
MZI10__080	8	6,5	12	0,8 – 1,1	200
MZI10__100	10	8	15	0,8 – 1,1	150
MZI10__120	12	9,5	20	1,1 – 1,3	150
MZI10__150	15	12,5	25	1,1 – 1,3	100
MZI10__180	18	14	30	1,1 – 1,3	100
MZI10__200	20	16	35	1,1 – 1,3	100
MZI10__250	25	20	45	1,3 – 1,5	50
MZI10__350	35	25	55	1,3 – 1,5	50
MZI10__450	45	30	60	1,3 – 1,5	25

-- NA Natural
NE Black

NOTE: As the inside diameter is coming closer to the expanded bore, the sleeving shrinks in length.
Larger sizes and thicker wall versions available.
Other diameters supplied upon request.

 RELATS HQ	 +34 938 627 510	 relats@relats.com
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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

 UL recognized
File: n° E 151092



SPECIFICATIONS:

- IEC 60684
- UL 1441
- UNI CEI 11170

APPLICATION:

This glass sleeving impregnated with silicone varnish is flexible and compatible with most impregnating varnish systems, it is an ideal thermal and electrical insulation in heaters and other devices with a very high operating temperature.

DESCRIPTION:

Braided fiberglass sleeving impregnated with silicone varnish. This is a Class 250 electrical insulating sleeving. Sleeving provides air space insulation only.

OPERATING TEMPERATURE: -70°C to +300°C (3000 hours)
(-94°F to +572°F)
Peaks at +450°C (1 hour)
(+842°F)

ITS MAIN FEATURES ARE:

- Highly flexible; will bend without flattening around a diameter less than 10 times its bore
- Highly resilient: recover roundness after being flattened in minimum volume packing
- Good abrasion resistance
- Self-extinguishing
- Good fraying resistance when cut. Guillotine cut
- Nice touch and feel
- Halogen Free

Note: Colour tone may vary. This does not affect technical properties of sleeve.

DIELECTRIC STRENGTH:

TEST	METHOD	VSR 10	
		Minimum	Average
IEC 60684	250 mm. Inst, B / D Central Value (kV)	0,7	0,9
IEC 60684	250 mm. Inst, B / D Lowest Value (kV)	0,6	0,8
UL 1441	25 mm. Inst, B / D (kV)	0,9	1,1

REVITEX VSR10 RW

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
THERMAL OVERCHARGE AND AGEING RESISTANCE	Simulation of real operating conditions	10 days at +350 °C (+662°F)
HEAT RESISTANCE	Bending after heating IEC 60684 Part 2 Clause 13 48 hours at +400°C (+752°F)	No cracking. Silicone varnish will burn off.
CHEMICAL RESISTANCE	Simulation of real operating conditions	Excellent resistance to solvents. Compatible with most insulating varnishes.
FLAMMABILITY	Flame propagation: IEC 60684 Part 2 Clause 26 Method B vertical with wire. Flame test: UL 1441 VW-1 vertical with wire	Will not ignite. Will not ignite.
ABRASION RESISTANCE	SAE ARP 1536	Minimum 4.000 cycles
COLD RESISTANCE	Bending at low temperature IEC 60684 – Part 2 Clause 14	No cracking after bending at -70°C (-94°F)
OXYGEN INDEX (I.O.)	NF EN ISO 4589-2 1999	10 = 64,5%
GAS TOXICITY	NF X 70-100-1 2006 NF X 70-100-2 2006	Conventional Toxicity Index ITC = 4,08
SMOKE DENSITY	NF X 10-702-2 1995 NF X 10-702-1 1995	V0F4 = 3,2 Dmax = 3
SMOKE CLASS	NF F 16-101	IF = 2,2 Smoke Class: F0 Reaction to Fire Class: 11

Revitex VSR10-RW Conforms UNI CEI 11170-3 as per above tests carried on LAPI Laboratories

DIMENSIONS:

REFERENCE	NOMINAL BORE (mm) (in)	BORE TOLERANCE (mm) (in)	MINIMUM WALL THICKNESS (mm) (in)	STANDARD PACKAGING (m) (ft)
VSR10__005	0,5 (1/64")	+0,20 (0,008)	0,20 (0,008)	400 (1312)
VSR10__008	0,8 (1/32")	+0,20 (0,008)	0,25 (0,010)	400 (1312)
VSR10__010	1,0 (3/64")	+0,20 (0,008)	0,25 (0,010)	300 (984)
VSR10__030	3,0 (1/8")	+0,20 (0,008)	0,25 (0,010)	300 (984)
VSR10__035	3,5 (9/64")	+0,30 (0,012)	0,25 (0,010)	300 (984)
VSR10__040	4,0 (5/32")	+0,30 (0,012)	0,30 (0,012)	300 (984)
VSR10__050	5,0 (13/64")	+0,30 (0,012)	0,30 (0,012)	200 (656)
VSR10__060	6,0 (15/64")	+0,30 (0,012)	0,30 (0,012)	200 (656)
VSR10__080	8,0 (5/16")	+0,30 (0,012)	0,30 (0,012)	200 (656)
VSR10__090	9,0 (23/64")	+0,50 (0,020)	0,30 (0,012)	200 (656)
VSR10__100	10,0 (25/64")	+0,50 (0,020)	0,30 (0,012)	200 (656)
VSR10__120	12,0 (15/32")	+0,50 (0,020)	0,45 (0,018)	100 (328)
VSR10__140	14,0 (35/64")	+0,50 (0,020)	0,45 (0,018)	100 (328)
VSR10__160	16,0 (5/8")	+1,0 (0,039)	0,45 (0,018)	100 (328)
VSR10__180	18,0 (45/64")	+1,0 (0,039)	0,55 (0,022)	100 (328)
VSR10__200	20,0 (25/32")	+1,0 (0,039)	0,55 (0,022)	100 (328)
VSR10__250	25,0 (63/64")	+1,0 (0,039)	0,60 (0,024)	50 (164)

NOTE: Standard Colours:(- -) BC: White; NE: Black; GR: Yellow
Other diameters supplied upon request.

Different shapes available: Rectangular, Oval, etc.

PUT UP:


On spools of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:


Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

 UL recognized
File: n° E 151092



SPECIFICATIONS:

- IEC 60684
- UL 1441

APPLICATION:

This glass sleeving impregnated with silicone varnish is flexible and compatible with most impregnating varnish systems, it is an ideal thermal and electrical insulation in heaters and other devices with a very high operating temperature.

DESCRIPTION:

Heat Treated braided fiberglass sleeving impregnated with silicone varnish. This is a Class 250 electrical insulating sleeving. Sleeving provides air space insulation only.

OPERATING TEMPERATURE: -70°C to +300°C
Peaks at +450°C

ITS MAIN FEATURES ARE:

- Highly flexible; will bend without flattening around a diameter less than 10 times its bore
- Highly resilient: recover roundness after being flattened in minimum volume packing
- Good abrasion resistance
- Self-extinguishing
- Very good fraying resistance when cut. Guillotine cut
- Nice touch and feel
- Halogen Free

Note: Colour tone may vary. This does not affect technical properties of sleeve.

REVITEX VSR10 VERSION HT

DIELECTRIC STRENGTH:

TEST	METHOD	VSR 10	
		Minimum	Average
IEC 60684	250 mm. Inst. B / D Central Value (kV)	0,7	0,9
IEC 60684	250 mm. Inst. B / D Lowest Value (kV)	0,6	0,8
UL 1441	25 mm. Inst. B / D (kV)	0,9	1,1

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
THERMAL OVERCHARGE AND AGEING RESISTANCE	Simulation of real operating conditions	10 days at +350 °C
HEAT RESISTANCE	Bending after heating IEC 60684 Part 2 Clause 13, 48 hours at +400°C	No cracking. Silicone varnish will burn off.
CHEMICAL RESISTANCE	Simulation of real operating conditions	Excellent resistance to solvents. Compatible with most insulating varnishes.
FLAMMABILITY	Flame propagation: IEC 60684 Part 2 Clause 26 Method B vertical with wire. Flame test: UL 1441 VW-1 Vertical with wire	Will not ignite. Will not ignite.
ABRASION RESISTANCE	SAE ARP 1536	Minimum 2.000 cycles (Ø14 mm)
COLD RESISTANCE	Bending at low temperature IEC 60684 – Part 2 Clause 14	No cracking after bending at -70°C
OXYGEN INDEX (I.O.)	UNE EN ISO 4589	IO = 64,5%
TOXICITY	NF X 70-100	ITC = 4,08
SMOKE DENSITY	NF X 10-702 (Test conducted in flame mode)	V0F4 = 3,2 Dmax = 3
SMOKE INDEX	NF F 16-101	IF = 2,2

DIMENSIONS:

REFERENCE	NOMINAL BORE (mm)	BORE TOLERANCE (mm)	MINIMUM WALL THICKNESS (mm)	STANDARD PACKAGING
VHR10__005	0,5	+0,20	0,20	400
VHR10__010	1,0	+0,20	0,25	300
VHR10__015	1,5	+0,20	0,25	300
VHR10__020	2,0	+0,20	0,25	300
VHR10__030	3,0	+0,20	0,25	300
VHR10__040	4,0	+0,30	0,30	300
VHR10__050	5,0	+0,30	0,30	200
VHR10__060	6,0	+0,30	0,30	200
VHR10__080	8,0	+0,30	0,30	200
VHR10__100	10,0	+0,50	0,30	200
VHR10__120	12,0	+0,50	0,45	100
VHR10__140	14,0	+0,50	0,45	100
VHR10__160	16,0	+1,00	0,45	100
VHR10__180	18,0	+1,00	0,55	100
VHR10__200	20,0	+1,00	0,55	100
VHR10__220	22,0	+1,00	0,60	50
VHR10__250	25,0	+1,00	0,60	50

NOTE: Standard Colours: Black
Other diameters supplied upon request.

PUT UP:


On spools of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:

Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS



SPECIFICATIONS:

- IEC 60684
- EN ISO 11925 – 2
- ISO 5659-2
- NF X 70-100 NF X 10-702
- NF EN 60695 - 2/1
- NF EN ISO 4589
- NF F 16-101
- EN 45545-2-2013

APPLICATION:

This glass sleeving impregnated with silicone varnish is flexible and compatible with most impregnating varnish systems, it is an ideal thermal and electrical insulation in heaters and other devices with a very high operating temperature.

DESCRIPTION:

Fiberglass sleeving, thick wall, coated with self-extinguishing and fire resistant silicone rubber, that guarantees a high degree of thermal insulation and fire protection.

OPERATING TEMPERATURE: -70°C to +235°C (3000 hours)
(-94°F to +455°F)
Peaks at +300°C (1 hour)
(+572°F)

ITS MAIN FEATURES ARE:

- Heavy wall construction
- High thermal insulation, heat barrier
- Total wall thickness: 2 mm minimum (0,079 in)
- Non fraying
- Halogen Free
- Self-extinguishing
- Fire resistant
- Flexible
- Excellent resistance to oils, fluids and aggressive chemical agents
- Resistant to molten steel splashes
- Dielectrical strength (UL1441): 6,0 kV breakdown

REVITEX VSCTF RW

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT	
SINGLE FLAME SOURCE TEST (*)	EN ISO 11925-2:2002	Ignition at the surface 15 sec.	Pass
		Ignition at the surface 30 sec.	Pass
		Ignition at the edge 15 sec.	Pass
		Ignition at the edge 30 sec	Pass
SMOKE DENSITY (*)	ISO 5659-2	Ds max: 232	
GAS TOXICITY (*)	NF X 70-100-1 2006 + NF X 70-100-2 2006	Conventional Toxicity Index ITC: 6,15	
GLOW WIRE FLAMMABILITY TEST (*)	NF EN 60695-2-11:2001 + NF EN 60695-2-10:2001	No ignition at 850°C (1562 °F) Ignition at 960°C (1760 °F)- No flame resistance at 960°C (1760 °F) after glow wire withdrawal	
OXYGEN INDEX (I.O.)(*)	NF EN ISO 4589-2:1999	47,30%	
SMOKE CLASS (*)	NF F 16-101	Smoke index IF:12 Smoke class: F1 Reaction to fire class: I1	
FIRE RESISTANT TEST	30 minutes direct hot air gun flow	Interior temperature:266°C (511 °F) – ΔT:534°C(993 °F) Pass- Wire cables acc. UNI CEI 50264 & 50306 inside the sleeving with no damage and with continuous current.	
	30 minutes direct flame exposure at 1000°C (1832 °F)	Interior temperature:312°C (594 °F)- ΔT:688°C (1270 °F) Pass- Wire cables acc. UNI CEI 50264 & 50306 inside the sleeving with no damage and with continuous current.	
THERMAL OVERCHARGES	20 minutes @ +1090°C (1994 °F)	Pass	
	15 seconds @ +1640°C (2984 °F)	Pass	
AGEING RESISTANCE	Simulation of real operating conditions	After the process of accelerated thermal aging: 60days @ +235°C (+455 °F) ; 7 days @ +265°C (+509 °F). There are neither cracks nor deformations to be observed on the surface of silicone rubber coating and values obtained for dielectric strength meet the values required in UL1441	
COLD RESISTANCE	Bending at low temperature. IEC 60684 – Part 2 Clause 14	No cracking after bending at -70°C (-94°F)	
THERMAL INSULATION	Bundy SA n°1-006 R4 1 hour; Emitter temperature 250°C (482 °F); Distance 35mm (1,38 in)	Maintains an inside temperature 82°C (180 °F)	
FIRE BEHAVIOUR	EN 45545-2-2013	R1, R5: Hazard level HL1 R22: Hazard level HL1, HL2 R23: Hazard level HL1, HL2, HL3	

PUT UP

On spools of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:

Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:




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Colour tone may vary. This does not affect technical properties of sleeve.

DIMENSIONS:

REFERENCE	Size (mm) (in)	STANDARD PACKAGING (m) (ft)
VSCTFRT040	4,0 (5/32")	90 (295)
VSCTFRT060	6,0 (15/64")	30 (98)
VSCTFRT080	8,0 (5/16")	30 (98)
VSCTFRT100	10,0 (25/64")	30 (98)
VSCTFRT120	12,0 (15/32")	30 (98)
VSCTFRT140	14,0 (35/64")	50 (164)
VSCTFRT160	16,0 (5/8")	50 (164)
VSCTFRT180	18,0 (45/64")	50 (164)
VSCTFRT200	20,0 (25/32")	25 (82)
VSCTFRT220	22,0 (55/64")	25 (82)
VSCTFRT250	25,0 (63/64")	25 (82)
VSCTFRT300	30,0 (1 3/16")	25 (82)
VSCTFRT350	35,0 (1 3/8")	25 (82)
VSCTFRT380	38,0 (1 1/2")	25 (82)
VSCTFRT400	40,0 (1 37/64")	20 (68)
VSCTFRT450	45,0 (1 49/64")	15 (49)
VSCTFRT500	50,0 (1 31/32")	15 (49)
VSCTFRT550	55,0 (2 11/64")	15 (49)
VSCTFRT600	60,0 (2 23/64")	15 (49)

NOTE: Other diameters supplied upon request.
Tests performed at Warrington Fire LAPI (*)

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

SPECIFICATIONS:

- UL 1441
- Bundy SA n° 01-006 R4

APPLICATION:

Electrical cables or hydraulic, gas and lubricant conduits can be seriously damaged by flames, high temperatures or splashes of melted metal in their surroundings. By means of its thick fiberglass wall and coating with self-extinguishing silicone rubber, REVITEX Fire Sleeve guarantees a higher mechanical protection. Its great resistance to hydrocarbons, oils, fuel, acids and solvents combined with its thermal properties make it an ideal product for the insulation of components in automotive applications.

DESCRIPTION:

Fiberglass sleeving, thick wall, coated with self-extinguishing silicone rubber, that guarantees a high degree of thermal insulation. Thermal Class 250°C (482 °F).

OPERATING TEMPERATURE: -70°C to +235°C
(-94°F to +455 °F)
Peaks at +300°C (+572 °F)

ITS MAIN FEATURES ARE:

- Heavy wall construction
- Halogen Free
- High thermal insulation, heat barrier
- Self-extinguishing
- Non fraying
- Flexible
- Minimum wall thickness: 2 mm (0,079 in)
- Excellent resistance to oils, fluids and aggressive chemical agents

Note: Colour tone may vary. This does not affect technical properties of sleeve.

REVITEX VSCTE RW

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
AGEING RESISTANCE	Simulation of real operating conditions	After the process of accelerated thermal ageing: -60days @ +235°C (+455 °F) - 7 days @ +265°C (+509 °F) There are neither cracks nor deformations to be observed on the surface of the silicone rubber coating and values obtained for dielectric strength meet the values required in UL1441
THERMAL OVERCHARGES	Simulation of real operating conditions	20 minutes @ +1090°C (+1994 °F) 15 seconds @ +1640°C (+2984 °F)
FLAMMABILITY	UL 1441	Pass the following flame tests: Test HS: Sleeving in horizontal position Test VW1: Sleeving in vertical position
COLD RESISTANCE	UL 1441 (winding test): 1hour @ -70°C (-94 °F)	There are neither cracks nor deformations to be observed on the surface of the silicone rubber coating.
HUMIDITY RESISTANCE	UL 1441	After submitting the sleeving to humid test conditions it does not become flabby, nor does its surface become tacky.
CHEMICAL RESISTANCE	UL 1441 Simulation of real operating conditions (Tested with commercial products, simulating the real operating conditions of our customers applications)	Passes the values required for dielectric strength after immersion tests with ASTM oil n°2 under the following conditions: 96 h @ +100°C (+212 °F) 60 days @ +80°C (+176 °F) Excellent resistance to hydrocarbons, fuels, oils, solvents and aggressive chemical agents in general. Excellent resistance to impregnating varnishes and resins, air-drying as well as oven-drying types.
THERMAL INSULATION	Bundy SA n°1-006 R4 - 1 hour - Emitter temperature 250°C (482°F) - Distance 35mm (1,38 in)	Maintains an inside temperature 82 °C (180 °F) (see graph attached)
SMOKE DENSITY	NF X – 10-702-2 1995 NF X – 10-702-1 1995	VOF4: 115,0 Dm: 113,8
GAS TOXICITY	NF X – 70-100-1 2006 NF X – 70-100-2 2006	Conventional Toxicity Index ITC: 6,15
OXYGEN INDEX	NF EN ISO 4589-2 1999	l O;32,8%
SMOKE CLASS	NF F 16-101	Smoke Index IF: 8 Smoke Class: F1 Reaction to fire Class: I2

Revitex VSCTE-RW Conforms UNI CEI 11170-3 as per above tests carried on LAPI Laboratories

DIMENSIONS:

REFERENCE	Size (mm) (in)	STANDARD PACKAGING (m) (ft)
VSCTE __040	4,0 (5/32")	100 (328)
VSCTE __060	6,0 (15/64")	100 (328)
VSCTE __080	8,0 (5/16")	100 (328)
VSCTE __100	10,0 (25/64")	100 (328)
VSCTE __120	12,0 (15/32")	50 (164)
VSCTE __140	14,0 (35/64")	50 (164)
VSCTE __160	16,0 (5/8")	50 (164)
VSCTE __180	18,0 (45/64")	50 (164)
VSCTE __200	20,0 (25/32")	25 (82)
VSCTE __220	22,0 (55/64")	25 (82)
VSCTE __250	25,0 (63/64")	25 (82)
VSCTE __300	30,0 (1 3/16")	25 (82)
VSCTE __350	35,0 (1 3/8")	25 (82)
VSCTE __400	40,0 (1 37/64")	15 (49)
VSCTE __450	45,0 (1 49/64")	15 (49)
VSCTE __500	50,0 (1 31/32")	15 (49)
VSCTE __550	55,0 (2 11/64")	15 (49)
VSCTE __600	60,0 (2 23/64")	15 (49)

NOTE: Standard Colors: Black (NE) and Red Brown (RT)
Other diameters supplied upon request.

PUT UP




On spools of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:


Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

This information and data is believed to be accurate and reliable. We place at your disposal the technical information necessary for the correct use of our products and offer the possibility of simulating in our laboratory the conditions of many applications, in order to advise on the suitability of our products. As conditions and methods of use are beyond our control, the user must confirm suitability before adopting our products for commercial use. We reserve the right to modify characteristics with the aim of improving the product and adapting it to the requirements of the market.

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SLEEVINGS FOR THERMAL, ELECTRICAL, MECHANICAL & EMI APPLICATIONS

 UL recognized
File: n° E 151092



SPECIFICATIONS:

- IEC 60684 sheets 400-402
- UL 1441
- EN 45545-2 2013

APPLICATION:

Ideal thermal and electrical insulating material for points and appliances operating at high temperatures with thermal overcharges (incandescent lamps, domestic appliances, carbon brush flexible), chemical resistance and dielectric strength of silicone elastomer. It exhibits exceptional high and low temperature properties.

DESCRIPTION:

Sleeving made of a special silicone rubber coated fiberglass braid. This is a Class 200 electrical insulating sleeving available in three voltage grades.

OPERATING TEMPERATURE: -70°C to +235°C
(-94°F to +455 °F)
Peaks at +300°C (+572 °F)

ITS MAIN FEATURES ARE:

- Halogen free.
- Self-extinguishing VW 1.
- Highly flexible.
- Excellent chemical resistance to oils, fluids and aggressive chemical agents.

Note: Colour tone may vary. This does not affect technical properties of sleeve.

REVITEX VSC25 RW

DIELECTRIC STRENGTH:

TEST	METHOD	VSC25	
		Minimum	Average
IEC 60684	250 mm. Inst. B / D Central Value (kV)	3,0	4,0
IEC 60684	250 mm. Inst. B / D Lowest Value (kV)	2,5	3,5
UL 1441	25 mm. Inst. B / D (kV)	4,0	4,5

TECHNICAL CHARACTERISTICS:

PROPERTY	TEST	RESULT
HEAT RESISTANCE	UL 1441: 7 days at +265°C (+509 °F) 60 days at +235°C (+455°F)	No cracking or detachment of coating shall be visible and the original colors shall be clearly recognizable.
COLD RESISTANCE	Bending at low temperature IEC 60684 Part 2 Clause 14 at -70°C (-94 °F)	No cracking or detachment of coating shall be visible.
CHEMICAL RESISTANCE	Simulation of real operating conditions	Compatible with most insulating varnishes and transformer oils.
SMOKE DENSITY	ISO 5659-2	Ds max: 70
GAS TOXICITY	NF X – 70-100-1 2006 NF X – 70-100-2 2006	Conventional Toxicity Index ITC: 6,15
OXYGEN INDEX	NF EN ISO 4589-2 1999	I O;32,8%
SMOKE CLASS	NF F 16-101	Smoke Index IF: 8 Smoke Class: F 1 Reaction to fire Class: I2
FIRE BEHAVIOUR	EN 45545-2-2013	R22&R23:Hazard level HL1, HL2, HL3

DIMENSIONS:

REFERENCE	Nominal bore (mm) (in)	Bore tolerance (mm) (in)	Minimum Wall thickness (mm) (in)	STANDARD PACKAGING (m) (ft)
VSC25__005	0,5 (1/64")	+ 0,20 (0,008")	0,20 (0,008")	400,00 (1312)
VSC25__008	0,8 (1/32")	+ 0,20 (0,008")	0,20 (0,008")	400,00 (1312)
VSC25__010	1,0 (3/64")	+ 0,20(0,008")	0,30 (0,012")	400,00 (1312)
VSC25__015	1,5 (1/16")	+ 0,20 (0,008")	0,30 (0,012")	200,00 (656)
VSC25__020	2,0 (5/64")	+ 0,20 (0,008")	0,30 (0,012")	200,00 (656)
VSC25__025	2,5 (3/32")	+ 0,20 (0,008")	0,30 (0,012")	200,00 (656)
VSC25__030	3,0 (1/8")	+ 0,20 (0,008")	0,30 (0,012")	200,00 (656)
VSC25__035	3,5 (9/64")	+ 0,30 (0,012")	0,30 (0,012")	200,00 (656)
VSC25__040	4,0 (5/32")	+ 0,30 (0,012")	0,30 (0,012")	200,00 (656)
VSC25__045	4,5 (11/64")	+ 0,30 (0,012")	0,40 (0,016")	200,00 (656)
VSC25__050	5,0 (13/64")	+ 0,30 (0,012")	0,40 (0,016")	200,00 (656)
VSC25__060	6,0 (15/64")	+ 0,30 (0,012")	0,40 (0,016")	200,00 (656)
VSC25__070	7,0 (9/32")	+ 0,30 (0,012")	0,40 (0,016")	200,00 (656)
VSC25__080	8,0 (5/16")	+ 0,30 (0,012")	0,45 (0,018")	100,00 (328)
VSC25__090	9,0 (23/64")	+ 0,50 (0,020")	0,45 (0,018")	100,00 (328)
VSC25__100	10,0 (25/64")	+ 0,50 (0,020")	0,45 (0,018")	100,00 (328)
VSC25__110	11,0 (7/16")	+ 0,50 (0,020")	0,45 (0,018")	100,00 (328)
VSC25__120	12,0 (15/32")	+ 0,50 (0,020")	0,45 (0,018")	100,00 (328)
VSC25__130	13,0 (33/64")	+ 0,50 (0,020")	0,60 (0,024")	100,00 (328)
VSC25__140	14,0 (35/64")	+ 0,50 (0,020")	0,60 (0,024")	50,00 (164)
VSC25__150	15,0 (19/32")	+ 0,50 (0,020")	0,60 (0,024")	50,00 (164)
VSC25__160	16,0 (5/8")	+ 1,00 (0,039")	0,60 (0,024")	50,00 (164)
VSC25__180	18,0 (45/64")	+ 1,00 (0,039")	0,60 (0,024")	50,00 (164)
VSC25__200	20,0 (25/32")	+ 1,00 (0,039")	0,60 (0,024")	50,00 (164)

NOTE: Standard color (-): -NE:Black -RT:Red-brown.
Other diameters supplied upon request

PUT UP:

On coils of variable length, depending on the diameter of the sleeving. On request in cut lengths or spools.

HANDLING:

Care should be taken to minimize dust formation during handling and cutting this glass based material as dust or broken particles may cause skin irritation. The use of barrier creams on exposed areas will minimize the risk of skin irritation. For product safety data and product disposal advice, see separate Safety Data Sheet.

NOTES:

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