

INSULPROTECT SLEEVING

Description:

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

Thick wall thermal insulating sleeve consisting of glass fibre braid coated with self-extinguishing silicone.

Operating temperature : - 70°C to + 235°C
(3000 hours)
Peaks at + 300°C (1 hour)

Main features are:

- Heavy wall construction
- High thermal insulation, heat barrier
- Total wall thickness: 2 mm minimum
- Non fraying
- Halogen Free
- Self-extinguishing
- Fire resistant
- Flexible
- Excellent resistance to oils, fluids and aggressive chemical agents
- Dielectrical strength (UL 1441): 6,0 kV breakdown
- Resistant to molten steel splashes



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.

Specifications:

- IEC 60684
- UL 1441
- EN ISO 11925
- NF X 70-100 NF X 10-702
- NF EN 60695
- NF EN ISO 4589
- NF F 16-101

INSULPROTECT SLEEVING

Technical Characteristics		
<u>Property</u>	<u>Test</u>	<u>Result</u>
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 (*)	NF X 10-702-2 + NF X 10-702-1 1995	VOF4: 187,4 Dm: 283,2
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 Ignition at 960°C- No flame persistence at 960°C 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 - ΔT:534°C Pass- Wire cables 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 inside the sleeving with no damage and with continuous current.
Thermal Overcharges	20 minutes @ +1090°C 15 seconds @ +1640°C	Pass Pass
Ageing resistance	Simulation of real operating conditions	After the process of accelerated thermal ageing: 60 days @ +235°C 7 days @ +265°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

INSULPROTECT SLEEVING

LEADER IN HIGH TEMPERATURE SOLUTIONS

TECHNICAL DATASHEET

Technical Characteristics		
<i>Property</i>	Test	Result
Flammability	UL 1441	Pass the following flame tests: Test HS (sleeving in horizontal position): Pass Test VW1 (sleeving in vertical position): Pass
Cold resistance	UL 1441 (winding test): 1hour @ -40°C	There are neither cracks nor deformations to be observed on the surface of 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 no2 under the following conditions: 96 h @ +100°C 60 days @ + 80°C 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 no1-006 R4 1 hour; Emitter temperature 250°C; Distance 35 mm	Maintains an inside temperature 82°C

Tests performed at Warrington Fire LAPI (*)

Dimension	Article 15m/ rol	Article 30 m/rol
9,5 mm	3380009SIH/15	3380009SIH/30
11,1 mm	3380011SIH/15	3380011SIH/30
12,7 mm	3380013SIH/15	3380013SIH/30
15,9 mm	3380016SIH/15	3380016SIH/30
19 mm	3380019SIH/15	3380019SIH/30
22 mm	3380022SIH/15	3380022SIH/30
25,4 mm	3380025SIH/15	3380025SIH/30
28,6 mm	3380029SIH/15	3380029SIH/30

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31,8 mm	3380032SIH/15	3380032SIH/30
34,9 mm	3380035SIH/15	3380035SIH/30
38,1 mm	3380038SIH/15	3380038SIH/30
41,3 mm	3380041SIH/15	3380041SIH/30
44,4 mm	3380044SIH/15	3380044SIH/30
48 mm	3380048SIH/15	3380048SIH/30
50,8 mm	3380051SIH/15	3380051SIH/30
57,2 mm	3380057SIH/15	3380057SIH/30
63,5 mm	3380064SIH/15	3380064SIH/30
69,8 mm	3380070SIH/15	3380070SIH/30
76,2 mm	3380076SIH/15	
82,3 mm	3380082SIH/15	
88,9 mm	3380089SIH/15	
95,2 mm	3380095SIH/15	
102 mm	3380102SIH/15	
114 mm	3380114SIH/15	
127 mm	3380127SIH/15	

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