

STRONG, a copper tube specifically designed for use on heavy engineering sites; in fact its special crush-proof coating guarantees protection against any stress that may occur on site before the tube is installed under the floor, preventing impacts, abrasions and contact with particularly aggressive materials.

The coating is made in low density, closed cell expanded polyethylene, in compliance with Law 10/91, former **Law 373**, concerning the design, installation, running and maintenance of thermal plants in buildings designed to control energy consumption.

The coating is odourless, non-toxic and made without the use of CFC. It is suitable to be used in plants with operating temperatures ranging from -70°C to +95°C.

The coils are individually wrapped in a transparent film giving further protection to the coating during handling and transport.

The STRONG copper tube is supplied in 50-metre coils, marked at intervals also indicating the relative meters.

The core of the STRONG is formed by the ESENCOR copper tube, which provides excellent protection against corrosion. It is the result of scientific studies and tests that guarantee a considerably lower level of residual carbon than that required by manufacturing standards.



The copper tube EN 1057 is marked **CE** as required by 89/106/EEC EU Construction Products Directive.

| | |
|------------------------------------|---|
| INSULATION DENSITY | : 160 kg/m ³ |
| THICKNESS OF THE INSULATING SHEATH | : from 6 to 6.5 mm |
| USAGE TEMPERATURES | : -70 °C +95 °C |
| THERMAL CONDUCTIVITY | : 0.0397 W · m ⁻¹ · K ⁻¹ |
| RESISTANCE TO FIRE | : Class 1 self-extinguishing |
| WRAPPING | : coils individually wrapped with transparent film for further protection |

CHARACTERISTICS OF THE ESENCOR COPPER TUBE

| | |
|--|---|
| Alloy | Cu-DHP CW024A (Cu = 99.90% min. – P = 0.015 ÷ 0.040%) |
| Physical state | Annealed |
| Unit tensile strength | 220 MPa/mm ² min. |
| Percentage elongation | 40% min. |
| Internal cleanliness | C max. 0,20 mg/dm ² |
| Dimensions and tolerances ¹ | in compliance with standard EN 1057 |
| Internal surface roughness | RA 1/10 micron |
| Linear thermal expansion coefficient | 0.00168 mm/m °C |
| Thermal conductivity at 20 °C | 364 W/m k |

¹ Products with marking, dimensional tolerances and various lengths can be prepared on specific Customer request.

STRONG COPPER TUBE

TABLE OF THE DIMENSIONS OF THE SILMET STRONG COPPER TUBE

| dimensions without insulation mm | diameter with insulation mm | thickness of insulating sheath mm | bursting pressure MPa | operating pressure MPa | coil length m | water content per meter l/m |
|--|-----------------------------------|---|-----------------------------|------------------------------|---------------------|-----------------------------------|
| 10 X 1 | 22 | 6 | 44,88 | 11,22 | 50 | 0,0503 |
| 12 X 1 | 24 | 6 | 37,40 | 9,35 | 50 | 0,0785 |
| 14 X 1 | 26 | 6 | 32,06 | 8,01 | 50 | 0,1131 |
| 15 X 1 | 27 | 6 | 29,92 | 7,48 | 50 | 0,1327 |
| 16 X 1 | 29 | 6,5 | 28,05 | 7,01 | 50 | 0,1539 |
| 18 X 1 | 31 | 6,5 | 24,93 | 6,23 | 50 | 0,2011 |

PALLETISATION OF SILMET STRONG COATED COILS

| measurement Ø x thickness mm | coil length m | coils per pallet n | metres per pallet m | approx. gross pallet weight kg | dimensions of pack cm |
|------------------------------------|---------------------|--------------------------|---------------------------|--------------------------------------|-----------------------------|
| 10 X 1 | 50 | 20 | 1.000 | 344 | h 220 X Ø 80 |
| 12 X 1 | 50 | 17 | 850 | 320 | h 220 X Ø 80 |
| 14 X 1 | 50 | 16 | 800 | 338 | h 220 X Ø 80 |
| 15 X 1 | 50 | 15 | 750 | 360 | h 220 X Ø 80 |
| 16 X 1 | 50 | 15 | 750 | 370 | h 220 X Ø 90 |
| 18 X 1 | 50 | 13 | 650 | 365 | h 220 X Ø 90 |

The packs cannot be stacked.

A maximum of 2 packs with a large diameter (**h 220 x Ø 90 cm**) and available for other coated products, are loaded onto the pallet side-by-side together with a third smaller pallet.

The others can be loaded side-by-side in threes.

STRONG copper tube is suitable for the following fields of use and with the following references:

Potable water, hot and cold

DPR 1095 August 3, 1968

Amendment to Article 125 of the General Health Regulation approved by Royal Decree 3 February 1901, n. 45, and amended by Royal Decree of 23 June 1904, n. 369.

European Directive 98/83/EC of 3 November 1998

on the quality of water intended for human consumption (OJ No. L 330, 12.05.1998)

D.L. February 2, 2001 n. 31

Implementation of Directive 98/83/EC on water intended for human consumption.

Ministerial Decree April 6, 2004 n. 174

Regulation of materials and objects that can be used in stationary collection, treatment, supply and distribution of water intended for human consumption.

Distribution of liquid and gaseous fuels by:

UNI CIG 7129

Gas systems for household and similar powered by the distribution network - Design and installation.

Heating

Subject to the provisions of the **Law of January 9, 1991 No. 10 and Presidential Decree August 26, 1993 n. 412.**