



SHEATH CHARACTERISTICS

- Thermal conductivity: $\lambda \leq 0,038$ W/mK at 40°C.
- Average sheath density: 33 kg/m³.
- Min. sheath thickness: 6 mm (9 mm for the 22 x 1 mm diameter) under continuous laser gauge control.
- Free from ammoniacal residues.
- Excellent resistance to external chemical agents.
- Reaction to fire classification: BLs1d0 (EN 13501-1).
- Devoid of CFCs and HCFCs (Reg. EEC/EU 2037/2000).

APPLICATIONS

- Hot and cold drinking water.
- Heating plants.

In compliance with applicable regulations.

This copper tube is produced according to standard EN 1057 and is pre-insulated during production with a polyethylene foam characterised by a closed cell structure of regularly and uniformly distributed cell sizes. The insulating sheath is also externally protected by means of a particular polyethylene film. Insulated according to Italian Law 10/91 and its implementation decree (DPR 412/93) for the **distribution of heat transfer fluid within heated environments**, the insulation material is manufactured in full compliance with European Regulation EEC/EU 2037/2000, which requires the use of foam-based insulation material free of CFC and HCFC gases, which are harmful to health and the environment. The production process ensures the absolute adherence of the insulating sheath to the outside wall of the copper tube, so as to avoid the formation of interspaces that would degrade the thermal insulation performance. The production process of the tube, coated directly in line, guarantees the absolute malleability of the product and its ease of installation.

Furthermore, in the interests of consumer protection and in accordance with **EU Regulation 305/2011 for construction products (CPR)**, SMISOL® One copper tubes, in line with EN 1057, are certified with the **CE mark**.

A supplementary guarantee of compliance with prevailing regulation standards is assured with the achievement of **UNI-IGQ Quality certification**.

EXTERNAL PROTECTION

The insulating sheath is in closed cell PE foam conforming to Reg. CEE/EU 2037/2000 (devoid of CFCs and HCFCs) with a green polyethylene corrugated film outer surface. Reaction to fire classification: BLs1d0 (EN 13501-1).

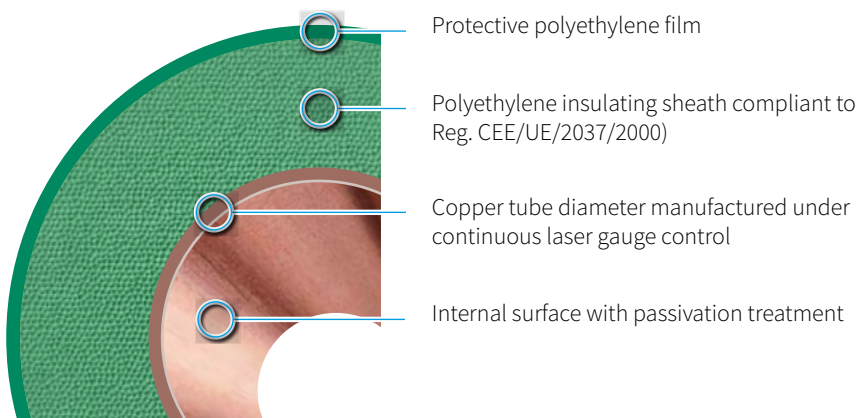


TABLE OF STANDARD PRODUCT DIMENSIONS - COILS

dimensions Ed x Th	coil length min. guaranteed	min. sheath thickness	burst pressure	operating pressure ASTM	water content
(mm)	(m)	(mm)	(MPa)	(MPa)	(L/m)
10 x 1	50	6	44,88	11,22	0,050
12 x 1	50	6	37,40	9,35	0,079
14 x 1	50	6	32,06	8,01	0,113
15 x 1	50	6	29,92	7,48	0,133
16 x 1	50	6	28,05	7,01	0,154
18 x 1	50	6	24,93	6,23	0,201
22 x 1	25	9	20,40	5,10	0,314

Ed = External diameter Th = wall thickness

Other dimensions compliant to EN 1057 are available on request.

INTERNAL PROTECTION

It has proven **bacteriostatic properties**, making it the ideal material for drinking water distribution, in order to prevent the growth of bacteria such as Legionella. SMISOL®One complies with D.M. 174/04 (O.J. 166 of 14/07/04), which defines the parameters to be met by materials in contact with drinking water. During manufacture, the tubes are subjected to **a patented treatment for passivation and stabilisation of the internal walls**, thus assuring absolute compliance with the potability parameters required by European legislation for transported drinking water (European Directive 2020/2184/EU). SMISOL®One copper tube has a carbon residue $C < 0.06 \text{ mg/dm}^2$, much lower than that required by EN 1057 which defines a carbon content limit of $C \leq 0.20 \text{ mg/dm}^2$.

