

SMISOL[®] One

VERSATILE AND
PROFESSIONAL





FIELDS OF APPLICATION:

- Hot and cold drinking water
- Distribution of drinking water.
- Heating

In compliance with and within the limits set by the applicable regulations.

SMISOL® One is a seamless drawn copper tube compliant with the EN 1057 standard, pre-insulated during production with closed-cell expanded polyethylene, characterised by a uniform and regular structure. The insulating sleeve is further protected by an outer polyethylene film that improves mechanical strength and durability during installation.

The product is suitable for the distribution of heat-transfer fluids inside heated environments and complies with the insulation requirements set by national regulations on energy-consumption containment (Law 10/91 and subsequent updates, now transposed into Legislative Decree 192/2005 as amended, with related implementing decrees).

The insulating sleeve is made in compliance with European environmental regulations (Reg. (EU) 2024/590), being totally free from CFCs and HCFCs. The in-line production process ensures perfect adhesion of the insulation to the external wall of the copper tube, preventing the formation of air gaps that would reduce the efficiency of the thermal insulation.

Direct co-extrusion onto the tube also ensures high malleability and ease of installation, even on complex routes.

In compliance with EU Regulation 305/2011 (CPR), the EN 1057-compliant copper tubes are CE marked.

INSULATING COATING CHARACTERISTICS

- Thermal conductivity: $\lambda \leq 0.038 \text{ W/(m}\cdot\text{K)}$ at 40 °C
- Average density: $\sim 33 \text{ kg/m}^3$
- Minimum coating thickness: 6 mm (9 mm for diameter 22 x 1 mm)
- Closed-cell expanded polyethylene structure
- Free from ammonia residues
- Excellent resistance to external chemical agents
- Reaction to fire: class BL-s1,d0 according to EN 13501-1
- Free from CFCs and HCFCs (Reg. (EU) 2024/590)

EXTERNAL PROTECTION

The insulating sleeve in closed-cell expanded PE compliant with Reg. (EU) 2024/590 (without the use of CFCs and HCFCs) with an outer green polyethylene film, corrugated on the surface. The coating has a reaction to fire of class BL-s1,d0 (EN 13501-1).

INTERNAL PROTECTION

The copper tube has natural bacteriostatic properties, which make it particularly suitable for plumbing/sanitary systems, helping to limit bacterial proliferation (e.g. Legionella).

SMISOL® One complies with Directive (EU) 2020/2184 on the quality of water intended for human consumption, paying particular attention to the suitability of materials in contact with drinking water.

During production, the tube undergoes a patented treatment of passivation and stabilisation of the internal surface, obtaining a carbon residue $C < 0.06 \text{ mg/dm}^2$, well below the maximum limit set by EN 1057 ($C \leq 0.20 \text{ mg/dm}^2$).

TABLE: STANDARD PRODUCTION SIZES - COILED TUBES

Size OD x WT (mm)	Min. Guaranteed Coil Length (m)	Min. Coating Thickness (mm)	Burst Pressure (MPa)	ASTM Working Pressure (MPa)	Water Content (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

OD = Outer Diameter WT = Wall Thickness