

SILMET PVC, a copper tube pre-insulated with PVC, produced with cutting-edge machinery, complies with all the international reference standards, is manufactured according to **D.P.R. 1095/68 and D.M. n. 174 of 06.04.2004 of Italian Department of Health - ref. European Council Directive n. 98/83/EC** as far as the transport of drinking water is concerned, and is suitable for building plants for transporting gas (**UNI CIG 7129**).

The characteristics of our coating in PVC make the tube resistant to abrasions and corrosion and the particular internal star-shaped structure allows the correct expansion of the copper tube without jeopardising the condition of the coating.

The PVC coating is odourless, non-toxic and is made without the use of CFC. It is suitable to be used in plants with operating temperatures ranging from -80°C to +100°C.

The PVC copper tube is supplied in 50-meter coils (25 meters with Ø 22 mm) marked at intervals also indicating the relative meters.

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

The main characteristics of the SILMET PVC sheath are excellent plasticity, mechanical resistance to abrasions and corrosion, all ensuring that the tube lasts for a long time.

The pre-insulated copper PVC SILMET tube is mainly used in under-floor heating plants, water distribution systems and in the production of gas and air lines.



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

THICKNESS OF THE INSULATING SHEATH	: 2 mm
USAGE TEMPERATURES	: -80 °C +100 °C
THERMAL CONDUCTIVITY	: 0,0397 W · m ⁻¹ · K ⁻¹
RESISTANCE TO FIRE	: 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.

TABLE OF THE DIMENSIONS OF THE SILMET PVC COPPER TUBE

dimensions without insulation	diameter with insulation	thickness of insulating sheath	bursting pressure	operating pressure	coil length	water content per meter
mm	mm	mm	MPa	MPa	m	l/m
6 X 1	10	2	74,80	18,70	50	0,0126
8 X 1	12	2	56,10	14,03	50	0,0283
10 X 1	14	2	44,88	11,22	50	0,0503
12 X 1	16	2	37,40	9,35	50	0,0785
14 X 1	18	2	32,06	8,01	50	0,1131
15 X 1	19	2	29,92	7,48	50	0,1327
16 X 1	20	2	28,05	7,01	50	0,1539
18 X 1	22	2	24,93	6,23	50	0,2011
22 X 1	26	2	20,40	5,10	25	0,3142

PALLETISATION OF SILMET PVC COATED COILS

measurement Ø x thickness	coil length	coils per pallet	metres per pallet	approx. gross pallet weight	dimensions of pack
mm	m	n	m	kg	cm
10 X 1	50	30	1.500	425	h 220 X Ø 80
12 X 1	50	30	1.500	512	h 220 X Ø 80
14 X 1	50	27	1.350	545	h 220 X Ø 80
15 X 1	50	26	1.300	585	h 220 X Ø 80
16 X 1	50	25	1.250	600	h 220 X Ø 80
18 X 1	50	23	1.150	614	h 220 X Ø 90
22 X 1	25	26	650	460	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.

PVC 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.**