

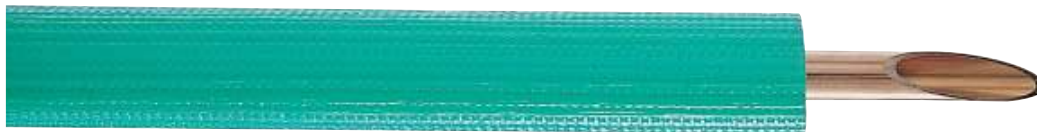
REFRY, the copper tube that is ideal for distributing cooling liquids and particularly suitable for building FAN-COIL heating and cooling systems. It is supplied with caps at the end for retaining the required high level of cleanliness on the inner surface until its installation.

The particularly well-designed coating, made using low density, closed cell expanded polyethylene guarantees excellent resistance to the loss of water vapour with the resulting reduction in the formation of humidity on the external surface of the tube and complies with **Law 10/91**, former Law 373, concerning the design, installation, running and maintenance of thermal plants in buildings for the purpose of the control of energy consumption.

The coating is odourless, non-toxic and made without the use of CFC. Its external surface is corrugated giving further mechanical protection. It has class 1 fire resistance classification and is suitable to be used in plants with operating temperatures from -30°C to +95°C.

The REFRY copper tube is supplied in 50-metre coils (25 metres for Ø 22 mm) marked at intervals also indicating the relative metres.

The core of the REFRY is the ESENCOR copper tube, providing excellent protection against corrosion, the result of scientific studies and tests that guarantee a considerably lower level of carbon residue than is required by the manufacturing standards, with a level of internal cleanliness that complies with standard **ASTM B280**.



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

INSULATION DENSITY	: 45 kg/m ³
THICKNESS OF THE INSULATING SHEATH	: from 8 to 15 mm
OPERATING TEMPERATURES	: -30 °C +95 °C
WATER VAPOUR LOSS COEFFICIENT	: 5482
THERMAL CONDUCTIBILITY	: 0.0397 W · m ⁻¹ · K ⁻¹
FIRE RESISTANCE	: Class 1 (self-extinguishing)
WRAPPING	: coils individually wrapped with transparent film to give further pro

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.

REFRY COPPER TUBE

silmet S.P.A.

TABLE OF THE DIMENSIONS OF THE SILMET REFRY 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
6 X 1	22	8	74,80	18,70	50	0,0126
8 X 1	24	8	56,10	14,03	50	0,0283
10 X 1	28	9	44,88	11,22	50	0,0503
12 X 1	30	9	37,40	9,35	50	0,0785
14 X 1	38	12	32,06	8,01	50	0,1131
15 X 1	39	12	29,92	7,48	50	0,1327
16 X 1	40	12	28,05	7,01	50	0,1539
18 X 1	42	12	24,93	6,23	50	0,2011
22 X 1	52	15	20,40	5,10	25	0,3142

PALLETISATION OF SILMET REFRY COATED COILS

measurement Ø x thickness mm	coil length m	coils per pallet n	meters per pallet m	approx. gross pallet weight kg	dimensions of pack cm
6 X 1	22	8	74,80	18,70	50
8 X 1	24	8	56,10	14,03	50
10 X 1	28	9	44,88	11,22	50
12 X 1	30	9	37,40	9,35	50
14 X 1	38	12	32,06	8,01	50
15 X 1	39	12	29,92	7,48	50
16 X 1	40	12	28,05	7,01	50
18 X 1	42	12	24,93	6,23	50
22 X 1	52	15	20,40	5,10	25

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.

REFRY 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.

Heating

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