

APPLICATIONS

- Air conditioning.
- Transportation of refrigerant gases (R32, R410A, R407,...)

In compliance with applicable regulations.



SMISOL®Clim is a result of close customer-manufacturer cooperation, meeting the needs of an increasingly demanding market asking for technological solutions that fully meet the technical specifications required by the air conditioning sector, while maintaining a good quality/price ratio.

This copper tube is manufactured according to EN 12735-1, and is pre-insulated with expanded closed cell polyethylene in accordance with EN 14114. It is distributed in coils of 50 m length. The dimensions are defined in inches and, as expressly indicated by EN 12735-1, in section 6.3.2, they may be agreed between manufacturer and customer.

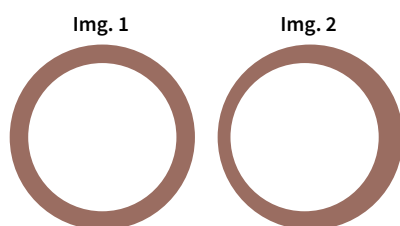
SMISOL®Clim is also characterised by **particularly low eccentricity values**, a very important feature for endforming operations.

SHEATH CHARACTERISTICS

- Thermal conductivity: $\lambda \leq 0,038$ W/mK at 40°C.
- Average value of the water vapour diffusion resistance factor " μ " > 15.000.
- Average sheath density: 33 kg/m³.
- 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).

INTERNAL SURFACE

The inner surface of the copper tube is bright, clean and dry, essential characteristics of products such as this normally available on the market for industrial use. This particularity allows for the achievement of an integrated system with the terminal elements of the plant. The particular internal cleanliness of SMISOL®Clim is safeguarded by the closure of each coil ends by means of stoppers directly in the production phase.



ECCENTRICITY

Eccentricity defines the distance between the centre of the outer circumference and that of the inner circumference and it is a fundamental parameter for endforming operations. Zero eccentricity occurs when the two centres coincide perfectly (Img. 1), while in the presence of eccentricity, the greater its value, the more variation is evident in the wall thickness (Img. 2).

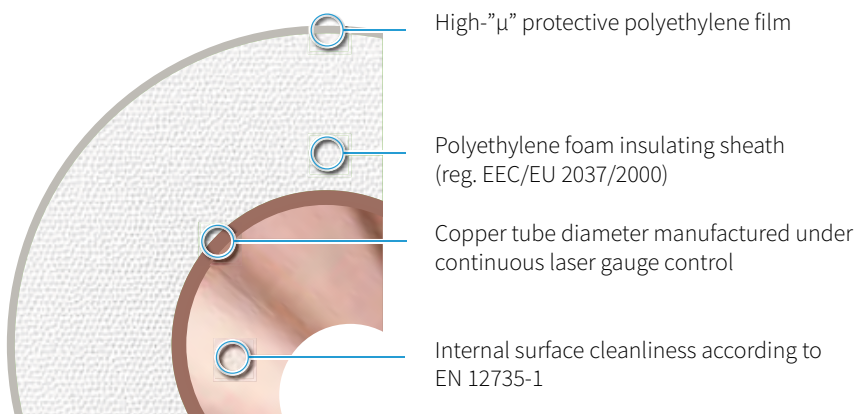


TABLE OF STANDARD PRODUCT DIMENSIONS - COILS (50 m)

external diameter	dimensions Ed x Th	coil length min. guaranteed	min sheath thickness	burst pressure	operating pressure ASTM	water content
(inches)	(mm)	(m)	(mm)	(Mpa)	(Mpa)	(l/m)
1/4"	6.35 x 0,7	50	6	49,47	12,37	0,019
1/4"	6.35 x 0,8	50	6	56,54	14,14	0,018
1/4"	6.35 x 1	50	6	70,68	17,67	0,014
3/8"	9.52 x 0,7	50	8	33,00	8,25	0,051
3/8"	9.52 x 0,8	50	8	37,71	9,43	0,049
3/8"	9.52 x 1	50	8	47,14	11,79	0,044
1/2"	12.70 x 0,7	50	10	24,74	6,18	0,100
1/2"	12.70 x 0,8	50	10	28,27	7,07	0,097
1/2"	12.70 x 1	50	10	35,34	8,83	0,090

Ed = External diameter Th = wall thickness

EXTERNAL PROTECTION

Polyethylene closed cell expanded foam with average **water vapour diffusion resistance factor "μ" greater than 15.000**. The insulating sheath is manufactured under full compliance to European Regulation EEC/EU 2037/2000, which enforces the use of expanded foam insulation sheaths devoid of CFCs and HCFCs, which are harmful to health and the environment. Reaction to fire classification: BLs1d0 (EN 13501-1).

INSULATOR TUBULAR SECTION

The expanded insulator of the tubular section guarantees better adhesion to the tube and better performance in terms of thermal insulation and moisture formation.

MARKING

The update of the standard EN12735-1 in April 2020 introduced the obligation to report on the insulating sheath the reference to the standard EN12735-1 and normal dimensions of the contained copper tubes in millimeters (Ed x Th).

