SMISOL®Tekgas
Practical and safe

APPLICATIONS

- **Distribution of liquid and gaseous fuels with particular reference in systems running inside walls.**

In compliance with applicable regulations.

SMISOL®Tekgas is a copper tube manufactured according to standard EN 1057. During production, it is coated with a special low density closed cell polyethylene sheath. Standard supply dimensions comply with the provisions of UNI 7129. Thanks to the characteristics of the sheath, which is continuously coextruded onto the copper tube, and the **presence of spacers** wrapped in helical direction with respect to the tube axis, it is particularly indicated for the transport of liquid and gaseous fuels.
The spacers ensure a sheath internal diameter that is 10 mm greater than the outer diameter of the tube. This geometrical peculiarity enables to use the tube for crossing walls and floors without the addition of further metal sheathing in full compliance with UNI 7129.

Paragraph 4.4.1.5 provides that: “in the crossing between perimetral and exterior walls, solid and drilled bricks, and prefabricated panels, the gas adduction tube shall not have joints, except for the inlet and outlet junctions, and shall be protected by gas-proof through-sheath”. The sheath can be manufactured either in metal or polymer and must have an internal diameter greater than 10 mm compared to the outer diameter of the tube. This tube may also be buried in critical situations where the walls contain cavities (for example drilled bricks). This is possible again thanks to the polymeric sheath that continuously envelops the copper tubing.

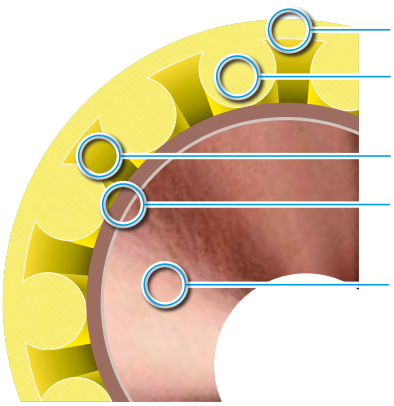
The helical shape of the spacers ensures that the tube-sheath separation remains constant even in the 90° bends, avoiding crushings; hence, in the event of leaks, the danger of gas pocket formation is avoided.

The in-line sheathing process ensures superior malleability, greater than that of comparable products on the market. In order to preserve this unique feature, SMISOL®Tekgas coils have a wide diameter which, with the already described features, qualifies this as both a practical and professional product.

Furthermore, in the interests of consumer protection and in accordance with **EU Regulation 305/2011 for construction products (CPR),** SMISOL®Tekgas copper tubes 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.**

SHEATH CHARACTERISTICS

- Low density closed cell polyethylene liner.
- Helically wound spacers.
- Air gap: 5 mm min.
- Excellent resistance to external chemical agents.
- Ink marking every meter.
- Reaction to fire classification: BLs1d0 (EN 13501-1).



Low-density polyethylene sheath

Spacers with helical spacing with respect to the tube axis

Air-gap, 5 mm min.

Copper tube diameter manufactured under continuous laser gauge control

Internal surface with passivation treatment

TABLE OF STANDARD PRODUCT DIMENSIONS - COILS

dimensions Ed x Th	coil length min. guaranteed	tube external diameter	burst pressure	operating pressure ASTM	water content
(mm)	(m)	(mm)	(MPa)	(MPa)	(l/m)
12 x 1	50	24	37,40	9,35	0,079
14 x 1	50	26	32,06	8,01	0,113
15 x 1	50	27	29,92	7,48	0,133
16 x 1	50	28	28,05	7,01	0,154
18 x 1	50	30	24,93	6,23	0,201
22 x 1	25	32	20,40	5,10	0,314

Ed = External diameter Th = wall thickness

EXTERNAL PROTECTION

The low density closed cell polyethylene sheath protects against damage from external agents such as building materials (eg. quick-setting cement) and damage caused by impact during the construction site transportation.
It complies with reg. EEC/EU 2037/2000. Reaction to fire classification: BLs1d0 (EN 13501-1).

INTERNAL PROTECTION

During production, the tubes are subjected to **a patented passivation treatment and stabilisation of the inner wall.** SMISOL®Tekgas copper tube has a carbon residue C < 0.06 mg/dm^2, much lower than that required by EN 1057, which defines a carbon content C ≤ 0.20 mg/dm^2.

BENDING

With reference to tool-assisted bending procedures, it should be noted that the matrix and countermatrix may differ significantly depending on the make and model of the tube-bender in use.
For any further information and clarification, please contact us at the toll free number or e-mail address reported on the cover.