



SMISOL® Tekgas

PRACTICAL
AND SAFE

FIELDS OF APPLICATION:

- Distribution of liquid and gaseous fuels, with particular reference to masonry structures where the use of non-metallic protective sleeves/ conduits is required.

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

SMISOL® Tekgas is the copper tube manufactured according to the EN 1057 standard, coated during production with a special low-density closed-cell polyethylene sleeve, manufactured in the sizes prescribed by UNI 7129.

Thanks to the special coating, co-extruded continuously onto the copper tube, and the presence of spacers wound helically relative to the tube axis, it is particularly suitable for the transport of liquid and gaseous fuels.

The spacers ensure that the sleeve has an internal diameter 10 mm larger than the external diameter of the pipe.

This geometric feature makes it possible to use the pipe for crossing walls and floors without adding a further metal sleeve, in full compliance with UNI 7129-1, which states at point 4.4.1.5: "when crossing perimeter and external walls, solid bricks, hollow bricks and prefabricated panels, the gas supply pipe must have no joints, with the exception of the inlet and outlet joints, and must be protected with a through sleeve impermeable to gas. The sleeve may be either metal or polymeric material; the sleeve must have an internal diameter 10 mm larger than the external diameter of the pipe."

This pipe can be installed concealed (in chases) even in critical situations where the walls contain cavities (for example hollow bricks); this is always possible thanks to the polymeric sleeve that continuously wraps the copper tube. During installation it is sufficient to embed SMISOL Tekgas in 15 mm of cement mortar to comply with UNI 7129-1, point 4.5.5.5 and point 4.5.5.6.

TABLE: STANDARD PRODUCTION SIZES - COILED TUBES

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

OD = Outer Diameter WT = Wall Thickness

The helical arrangement of the spacers ensures that the gap between tube and sleeve remains constant even on 90° bends, avoiding crushing; in this way, in the event of a leak, the danger of gas pockets forming is avoided.

The in-line coating process ensures high malleability, superior to similar products on the market. In order to preserve this exclusive feature, SMISOL® Tekgas coils have a very large winding diameter which, together with the characteristics already described, makes it a practical and particularly professional product at the same time. Furthermore, to protect the end consumer, in compliance with EU Regulation 305/2011 for construction products (CPR), the EN 1057-compliant copper tubes produced by SCT are marked with the CE mark. A further guarantee of compliance with current regulations is provided by obtaining the UNI-IGQ Quality mark.

COATING CHARACTERISTICS

- Coating in closed-cell low-density polyethylene (LDPE).
- Integrated helical spacers.
- Minimum air gap: ≥ 5 mm.
- High resistance to external chemical agents.
- Progressive ink marking every metre.
- Anti-crushing properties.
- Reaction to fire: class BL-s1,d0 according to EN 13501-1.

EXTERNAL PROTECTION

The low-density closed-cell polyethylene coating protects the tube against attacks from the outside by construction materials (e.g. quick-setting cement) and against damage caused by impacts during transport on site. It complies with reg. EEC/EU 2037/2000 and has a reaction to fire of class BL-s1,d0 (EN 13501-1).

INTERNAL PROTECTION

During production, it undergoes a patented treatment of passivation and stabilisation of the internal wall. The SMISOL® Tekgas copper tube has a carbon residue $C < 0.06$ mg/dm², much lower than that required by the EN 1057 standard, which sets a carbon content of $C \leq 0.20$ mg/dm².

BENDING

Bending must be carried out using suitable tube benders. The dies and counter-dies may vary depending on the make and model of the equipment used.

