

# SMISOL<sup>®</sup> Gas

STRONG AND  
IMPERMEABLE





#### FIELDS OF APPLICATION:

- Distribution of liquid and gaseous fuels, with particular reference to underground installation. *In compliance with and within the limits set by the applicable regulations.*

SMISOL® Gas is the copper tube manufactured according to the EN 1057 standard, coated during production with a special solid-section (non-star) sleeve of polyvinyl chloride (PVC) compliant with UNI 10823.

The properties of SMISOL® Gas in terms of melting point, resistance to fire and pressure, impermeability to gases and absolute tightness of brazing and joints become indispensable in the case of domestic combustible-gas distribution, where safety guarantees are essential and mandatorily required by technical standards and legal provisions.

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 special stabilised PVC resin, uniform and seamless, compliant with UNI 10823.
- Solid section (non-star) ensuring perfect adhesion to the copper tube surface.
- Minimum coating thickness:  $\geq 1.5$  mm, continuously monitored by laser gauge.
- Sleeve made from first-quality virgin PVC granulate for durability over time.
- Excellent resistance to external chemical agents.
- Progressive ink marking every metre.
- Electrical insulation resistance:  $\geq 100 \text{ M}\Omega \cdot \text{m}^2$  as required by UNI 10823.

#### EXTERNAL PROTECTION

Coating in stabilised polyvinyl resin, tested and guaranteed.

The coating protects against external chemical or mechanical action from construction materials (e.g. quick-setting cement) and against damage caused by impacts during transport on site. It allows use in the field of underground pipes, as indicated by the UNI 10823 standard itself: "the coating is obtained by extrusion, seamless, continuous, smooth externally and internally, with uniform nominal thickness, adhering to the external wall of the copper tube over its entire surface to ensure the absence of residual air pockets and prevent it from slipping off".

It is tested in-line in order to guarantee the electrical insulation resistance which, as required by the UNI 10823 standard, must be equal to or greater than  $100 \text{ M}\Omega \cdot \text{m}^2$ ; it also satisfies the requirements of UNI 7129 regarding the omission of the dielectric joint required for underground sections no longer than 3 m.

#### INTERNAL PROTECTION

During production, it undergoes a patented treatment of passivation and stabilisation of the internal wall. The SMISOL® Gas copper tube has a carbon residue  $C < 0.06 \text{ mg/dm}^2$ , much lower than that required by the EN 1057 standard, which sets a carbon content of  $C \leq 0.20 \text{ mg/dm}^2$ .

**TABLE: STANDARD PRODUCTION SIZES - COILED TUBES**

| Size<br>OD x WT<br>(mm) | Min.<br>Guaranteed<br>Coil Length<br>(m) | Min.<br>Coating<br>Thickness<br>(mm) | Burst<br>Pressure<br>(MPa) | ASTM<br>Working<br>Pressure<br>(MPa) | Water<br>Content<br>(l/m) |
|-------------------------|------------------------------------------|--------------------------------------|----------------------------|--------------------------------------|---------------------------|
| 12 x 1                  | 50                                       | 1,5                                  | 37,40                      | 9,35                                 | 0,079                     |
| 14 x 1                  | 50                                       | 1,5                                  | 32,06                      | 8,01                                 | 0,113                     |
| 15 x 1                  | 50                                       | 1,5                                  | 29,92                      | 7,48                                 | 0,133                     |
| 16 x 1                  | 50                                       | 1,5                                  | 28,05                      | 7,01                                 | 0,154                     |
| 18 x 1                  | 50                                       | 1,5                                  | 24,93                      | 6,23                                 | 0,201                     |
| 22 x 1                  | 25                                       | 1,5                                  | 20,40                      | 5,10                                 | 0,314                     |

OD = Outer Diameter WT = Wall Thickness