

DECLARATION OF PERFORMANCE (DOP)

The manufacturer and production location:

Silmet S.p.A. – Via Martiri della Libertà, 31
25030 – Torbole Casaglia (BS) Italy

Unique identification code of the product type:

Seamless, round copper tubes for water and gas in sanitary and heating applications with an outside diameter of 6 – 133 mm.

Type under Article 11(4) of the CPR:

ESENCOR[®] tubes

For a detailed description refer to www.silmet.com

Intended uses of the construction product in accordance with the applicable harmonized standards and as intended by the manufacturer:

- Distributing networks for hot water and cold water
- Hot water heating systems including panel heating systems (under-floor, wall, overhead)
- Domestic gas and liquid fuel distribution, also other liquids
- Waste water sanitation and other waste liquids and waste gas
- Fire fighting systems
- Pressure and vacuum systems

Declaration of Performance in conformity with the provisions of the following EU Regulation and EC Directive if the product has been installed in accordance with the national regulations:

EU 305/2011 EU Construction Products Regulation (CPR)
2014/68/EU EU Pressure Equipment Directive (PED)

Compliance with the requirements of the aforementioned EU Regulation and EC Directive is demonstrated by the observance of the following standard:

EN 1057:2006+A1:2010 Sytem 3 Annex ZA “Copper and copper alloys - Seamless, round copper tubes for water and gas in sanitary and heating applications”

The initial inspection of the products was carried out by the notified body:

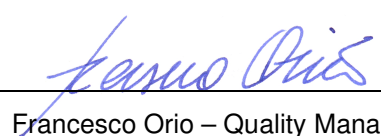
Identification No. DPC 0679

Name and address:

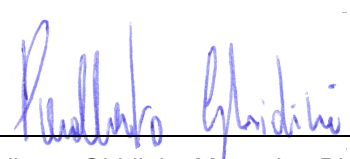
CSTB

84, avenue Jean Jaurès
Champs sur Marne
F-77447 Marne la Vallée CEDEX 2

First affixing of the CE marking: 2009



Francesco Orio – Quality Manager



Pieralberto Ghidini – Managing Director

September, 10 2016

This declaration is no guarantee of properties in terms of product liability. The safety information of the product documentation must be observed.

Declaration of performance according to:

EN 1057:2006 + A1:2010 – Annex ZA – Construction Products

| Essential characteristic | Result | Remarks |
|--|-------------------------------|--|
| Reaction to fire | Class A1 | Decision of the Commission 96/603/EC, amended 2000/605/EC. Material for Class A acc. 96/603/EC do not require to be tested for reaction to fire |
| Crushing strength | NPD* | Derived from wall thickness and mechanical properties |
| Internal pressure | NPD* | Derived from wall thickness and mechanical properties |
| Dimensional tolerances | pass | All tubes must meet the specified dimensional tolerances |
| Resistance to high temperature | suitable for use up to 120 °C | Temperatures found in heating system pipes have non significant influence on the mechanical properties of copper. For example, it is not necessary to adjust the admissible maximal tension for pressure calculation when the room temperature is increased to 120 °C. For applications up to 250 °C the required wall thickness of the tube shall be calculated in accordance with the valid design stress. |
| Weldability | pass | The suitability for welding is characteristic of the copper grade used for products according to EN 1057:2006 and assured by control of the material composition. |
| Tightness: gas and liquid | pass | All tubes must be subjected to a freedom from defect test. |
| Durability of crushing strength, internal pressure and tightness | pass | All tubes must meet the requirements regarding surface condition |

* Note: "No Performance Determined" according to EN 1057 / ZA.3

EN 1057:2006 + A1:2010 – Annex ZB – Pressure Equipment

| Essential characteristic | Remarks |
|---|---|
| Material properties Brittle fracture prevention | Material properties must be meet in accordance with the required mechanical properties. Copper is not susceptible to brittle fracture due to its face-centred cubic crystal structure |
| Conformity of Material and manufacturer's certified documentation | On request, compliance of the product is confirmed by a certificate of the manufacturer according to EN 10204 Annex ZA |

GENERAL REMARKS

- The performance of the products indentified above is in conformance with the declared performance.
- This declaration of performance is issued under the sole responsibility of the manufacturer.
- The CE mark is a passport for free trade across Europe. It does not replace existing national regulations for special applications (e.g. drinking water, gas, sanitary, heating installations, etc.)
- The copper tube is suitable for drinking water applications. The national regulations for drinking water applications remain applicable and must be followed.

This declaration is no guarantee of properties in terms of product liability. The safety information of the product documentation must be observed.