

## **EC DECLARATION OF CONFORMITY**

The manufacturer:

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

Declare that the seamless, round copper tubes for water and gas in sanitary and heating applications with an outside diameter of 6 - 76,1 mm, for:

- 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
- Drainage, and disposal of other liquids and gaseous waste
- Fire suppression and extinction systems
- Pressure and vacuum systems

comply with the requirements of the following EC Directives, when installed according to national regulations

**89/106/EEC** EU Construction Products Directive  
**97/23/EC** EU Pressure Equipment Directive


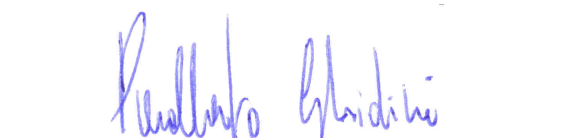
and comply with the requirements of these directives is demonstrated through conformity with the following standard:

**EN 1057:2010** Seamless, round copper tubes for water and gas in sanitary and heating applications

Notified body: Identification No. DPC 0679

### **CSTB**

84, avenue Jean Jaurès  
Champs sur Marne  
F-77447 Marne la Vallée CEDEX 2  
Test Report No.: CA 09-010

  
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Francesco Orio – Quality Manager  
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Pieralberto Ghidini – Managing Director

April, 01 2010

## **BASIS FOR THE CE MARKING**

### **EN 1057:2010 Annex ZA**

Compliance with the Construction Products Directive 89/106/EEC

<b>Essential characteristic</b>	<b>Result</b>	<b>Remarks</b>
Reaction to fire	Class A1	Decision of the Commission 96/603/EC, amended 2000/605/EC
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. Copper tubes can also be used for higher temperatures. National regulations must be observed when used at higher temperatures
Weldability	pass	The suitability for welding is characteristic of the copper grade used for products and ensured through the control of the material composition
Tightness	pass	All tubes must be subjected to leak-tightness testing
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 1057:2010 Annex ZB**

Compliance with the Pressure Equipment Directive 97/23/CE

<b>Essential characteristic</b>	<b>Remarks</b>
Material properties	Material properties must be met 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 CE marking ensures the free movement of goods within Europe. It does not replace existing national regulations for special applications (e.g. 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.

**MEDICAL**, the ideal choice for plants for the distribution of medical gases and vacuum systems.

Manufactured according to the most modern technologies on the current world market, in observance of European standard EN 13348, compatible with equipment manufactured in accordance with the Medical Device Directive 93/42/EEC, result of scientific studies and tests that guarantee the maximum compatibility for distributing the following gases and systems:

- oxygen, nitrous oxide, nitrogen, helium, carbon dioxide, xenon;
- air for breathing;
- specific mixtures of these gases mentioned above;
- air for operating surgical instruments;
- anaesthetic gases and vapours;
- vacuum.

The inner surface meets the requirements of reference standard and is also exempted from incompatible materials with medical gases. The standard EN 13348 is harmonized under the PED Directive 97/23/EC (EU Pressure Equipment Directive), therefore the Silmet MEDICAL tubes also meet the requirements of that Directive.



## TECHNICAL CHARACTERISTICS

Alloy	Cu-DHP CW024A (Cu = 99,90% min. - P = 0,015 ÷ 0,040%)		
Physical state according to EN 13348	Annealed R220	Half-Hard R250	Hard R290
Unit tensile strength – R min.	220 N/mm²	250 N/mm²	290 N/mm²
Percentage elongation – A min.	40%	20% o 30%	3%
Total carbon	C ≤ 0.02 g/m² max. in compliance with standard EN 13348		
Inner surface	Glossy		
Marking on tube	SILMET MEDICAL EN 13348 Ø X sp. Year quarter		
Dimensions and tolerances	In compliance with standard EN 13348		
Internal surface roughness	RA - 1/10 of micron		
Linear thermal expansion coefficient	0.00168 mm/m °C		
Thermal conductivity at 20°C	364 W/m · K		
* the symbol III is only present in the half-hard physical state			

## TABLE OF DIMENSIONS

external nominal diameter d	nominal thickness e						
	mm						
mm	0,7	0,8	0,9	1	1,2	1,5	2
8		R V		R V			
10		R V		R V			
12				R V			
15	R V			R V			
18				R V			
22			R V	R V		R V	
28			V	V		V	
35					V	V	
42					V	V	
54					V	V	V
R tubes in coils							
V tubes in straight lengths							



Other sizes can be supplied by agreement between the purchaser and the supplier.

For availability and feasibility of these measures and for other sizes please contact our sales department.