

APPLICATIONS

- Air conditioning and refrigeration systems.
- Transport of refrigerant fluids.
- Transport of technical gasses.

In compliance with applicable regulations.



GELO® is produced in 5 m straight lengths according to EN 12735-1. They are available both in millimeters and inches. They can be used for both civil and industrial refrigeration and conditioning systems.

GELO® copper tubes have a **high degree of internal cleanliness** and are specially designed for the conveyance of industrial and refrigerant gases, as well as vacuum distribution. They can be used in high-pressure systems and have excellent workability features. Special patented processes ensure the internal cleanliness of the pipe, assuring perfect compatibility with the special requirements of the various intended application fields.

This is to produce a tube whose internal surface is free from substances or particles that, transported by gas, can damage delicate and expensive machinery. Therefore, the residue and/or dust level of less than 0,038 g/m² should be maintained and the ends must be sealed in order to preserve its internal cleanliness.

TECHNICAL FEATURES

- Cu DHP (Cu: 99,9% min. P: 0,015 ÷ 0,040%) according to EN 1412
- Dimensions and tolerances, according to EN 12735-1
- Hard temper (R290)
Unit break load: R. min. ≥ 290 MPa (N/mm²)
- Elongation percentage: A₅ min. $> 3\%$

ACR APPLICATIONS

With reference to EN 12735-1, GELO® fully meets the requirements in the air conditioning and refrigeration sector (ACR) for refrigerant gas tubing in industry and laboratories. Particularly suitable for large-scale installations, it is in compliance with the technical specifications required by the European legislation on the packaging and **transport of refrigerant gasses (R32, R410, R407C, ...)**.

GELO® has bright, clean and dry internal surfaces, an essential feature that permits the safeguard of the conditions of the entire plant. The special production process guarantees less than 0,38 mg/dm² of soluble residues on the inner surface, in full compliance with EN 12735-1.

Such levels of cleanliness are assured by the specific production techniques adopted, as well as by the **sealing of the ends of each tube by appropriate stoppers** on completion of the manufacturing cycle.

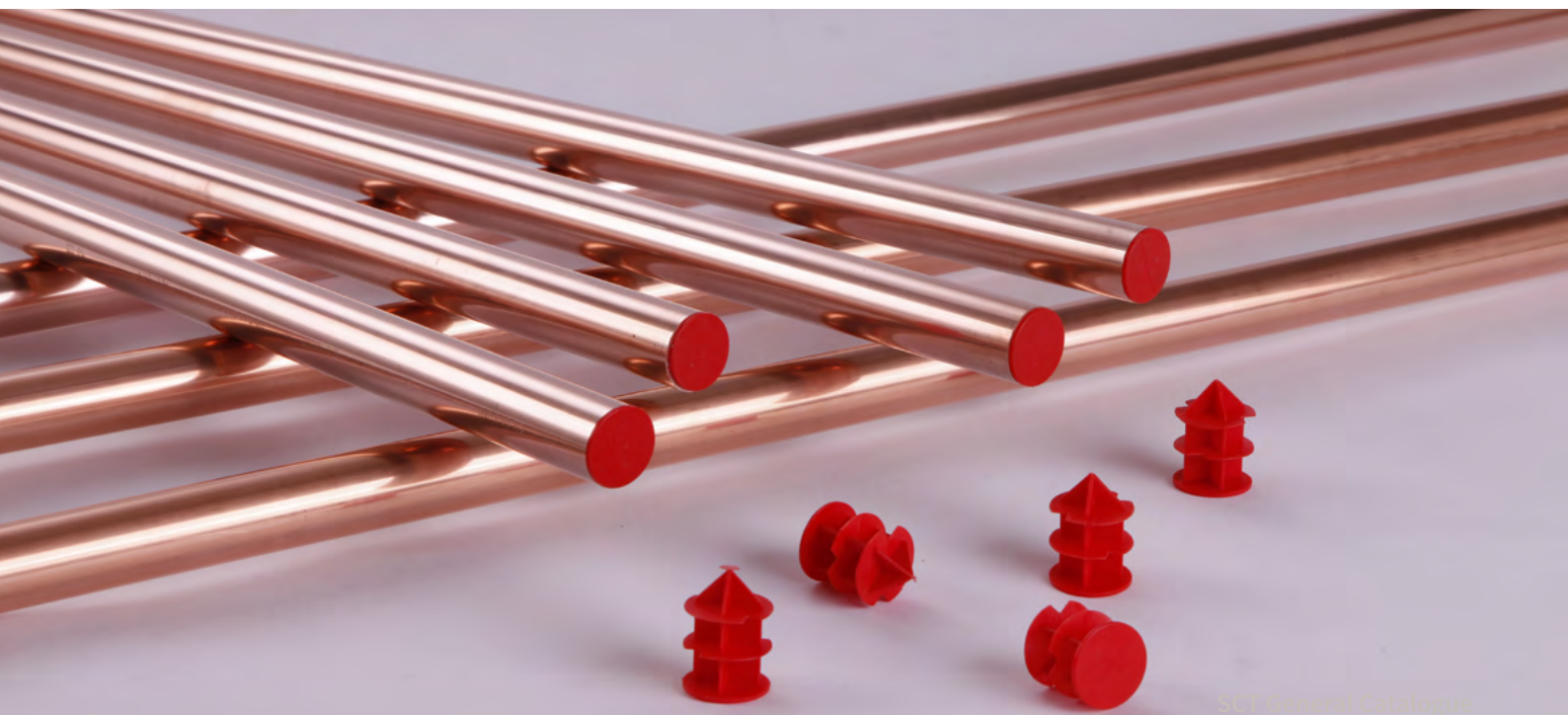


TABLE OF STANDARD PRODUCT DIMENSIONS - STRAIGHT LENGTHS (5 m)

dimensions Ed x Th		burst pressure	operating pressure ASTM
(mm)		(MPa)	(MPa)
10 x 1		59,16	14,79
12 x 1		49,30	12,33
14 x 1		42,26	10,56
15 x 1		39,44	9,86
16 x 1		36,98	9,24
18 x 1		32,87	8,22
22 x 1		26,89	6,72
22 x 1,5		40,34	10,08
28 x 1		21,13	5,28
28 x 1,5		31,69	7,92
35 x 1		16,90	4,23
35 x 1,5		25,35	6,34
42 x 1		14,09	3,52
42 x 1,5		21,13	5,28
54 x 1,5		16,43	4,11
54 x 2		21,91	5,48

dimensions Ed x Th		burst pressure	operating pressure ASTM
(inches)	(mm)	(MPa)	(MPa)
5/8"	15,87 x 1	37,28	9,32
3/4"	19,05 x 1	31,06	7,76
7/8"	22,22 x 1	26,62	6,66
1"	25,40 x 1	23,29	5,82
1 1/8"	28,57 x 1	20,71	5,18
1 1/8"	28,57 x 1,25	25,88	6,47
1 1/4"	31,75 x 1,25	23,29	5,82
1 3/8"	34,92 x 1,25	21,18	5,29
1 1/2"	38,10 x 1,25	19,41	4,85
1 5/8"	41,27 x 1,25	17,92	4,48
2 1/8"	53,97 x 1,65	18,09	4,52

Ed = External diameter Th = wall thickness

GELO® is produced in 5 m straight lengths (hard temper R290) in millimetres and inches versions.

In both formats, **the ends are sealed to grant the internal cleanliness of each unit piece, which is also marked by a specific numbering that identifies the production lot and ensures its traceability.**

All GELO® production is carried out in accordance with the rules defined by a Quality Management System approved under ISO 9001 and aligned to the European Pressure Equipment Directive 2014/68/EU.



The use of the GELO® range requires a careful assessment of the designed application, as well as the prevailing environmental and functional conditions in which the product will be installed. This assessment must be made by a qualified personnel at the project design stage: the correct use and the operational functionality of the finished tubing plant require appropriate installation in full compliance with applicable regulations and expert craftsmanship.

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TUBE CLOSING

GELO® is supplied in 5 m straight lengths, and each tube is sealed at the ends by polyethylene stoppers.

The sealing is guaranteed by a special cap composed of a cylinder with two rows of permanent o-rings.

This system generates a coupling with the internal diameter of the pipe, thus preventing its accidental removal. In this way, dust and impurities cannot penetrate into the tube so as to ensure its internal cleaning until the moment of the installation.

The high internal cleaning of the tube is essential to us. The refrigerant fluid should not contain external impurities so as to avoid the clogging of the batterie capillaries and ensure the correct heat exchange throughout the life of the equipment.