Strato

We put our soul into offering you more

APPLICATIONS

- **Drinking water distribution.**
- **Radiator heating.**
- **Chilled water distribution.**

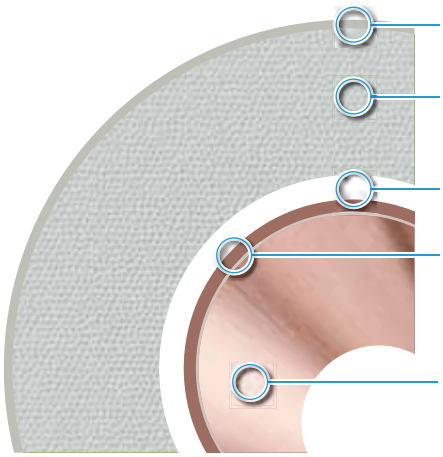
In compliance with applicable regulations.

A noble core, safe, performant, proven, hygienic, bacteriostatic - a core in Copper.

Strato represents the evolution of tubing for the supply of drinking water and radiator heating plants.
This product combines the **lightness** and the **ease of installation** of traditional multi-layer solutions with the unique performance of copper tubing in terms of **resistance to pressure and high temperatures, hygiene and antibacterial properties, low-pressure losses and reduced internal roughness.**

Strato is manufactured according to the standard UNI 11342: "...Composite, Seamless Copper and Pe, Tubes For Fluid Distribution". It is obtained through the coextrusion of a specific copper tube with reduced thickness and an indissoluble layer of polyethylene. It is then externally insulated with an insulating sheath made of closed cell expanded polyethylene compliant to Italian Law 10/91, the related Presidential Decree 412/93 and subsequent updates.

The quality of the employed raw materials and the sheath characteristics make the product particularly suitable for the distribution of drinking water (in compliance with D.M. 174/04) and for high-temperature radiator heating plants. Ease of installation and bending, **absence of memory effect**, lightness, **excellent quality/price ratio**, a wide choice of matching fittings, reliability and safety make Strato a truly innovative solution among the latest generation plumbing applications.



Polyethylene protective film

Insulation sheath made of crosslinked polyethylene (PEX)

Polyethylene coating

Copper tube

Inner surface with passivation treatment

ADVANTAGES

• Resistance to pressure and high temperatures
Strato is resistant to sudden pressure variations, as its metallic nature assures high mechanical strength.

• Hygiene and bacteriostatic properties
It is absolutely hygienic and counteracts bacterial growth.
It complies with D.M. 174/04.
Drinking water comes into contact only with the copper surface, ensuring the absence of odours and flavors.

• Absence of welded joints
The inner copper tube is obtained through a continuous extrusion process, unlike conventional multilayer materials, which involve the longitudinal seaming of the aluminium layer by means of various techniques.

• **Totally waterproof and 100% oxygen barrier**
Its metallic core renders it impermeable to gases: there is no risk of leaks and/or inside to outside contamination and vice versa.
In heating systems it avoids the presence of oxygen that can damage boilers, pump impellers or other metallic parts.

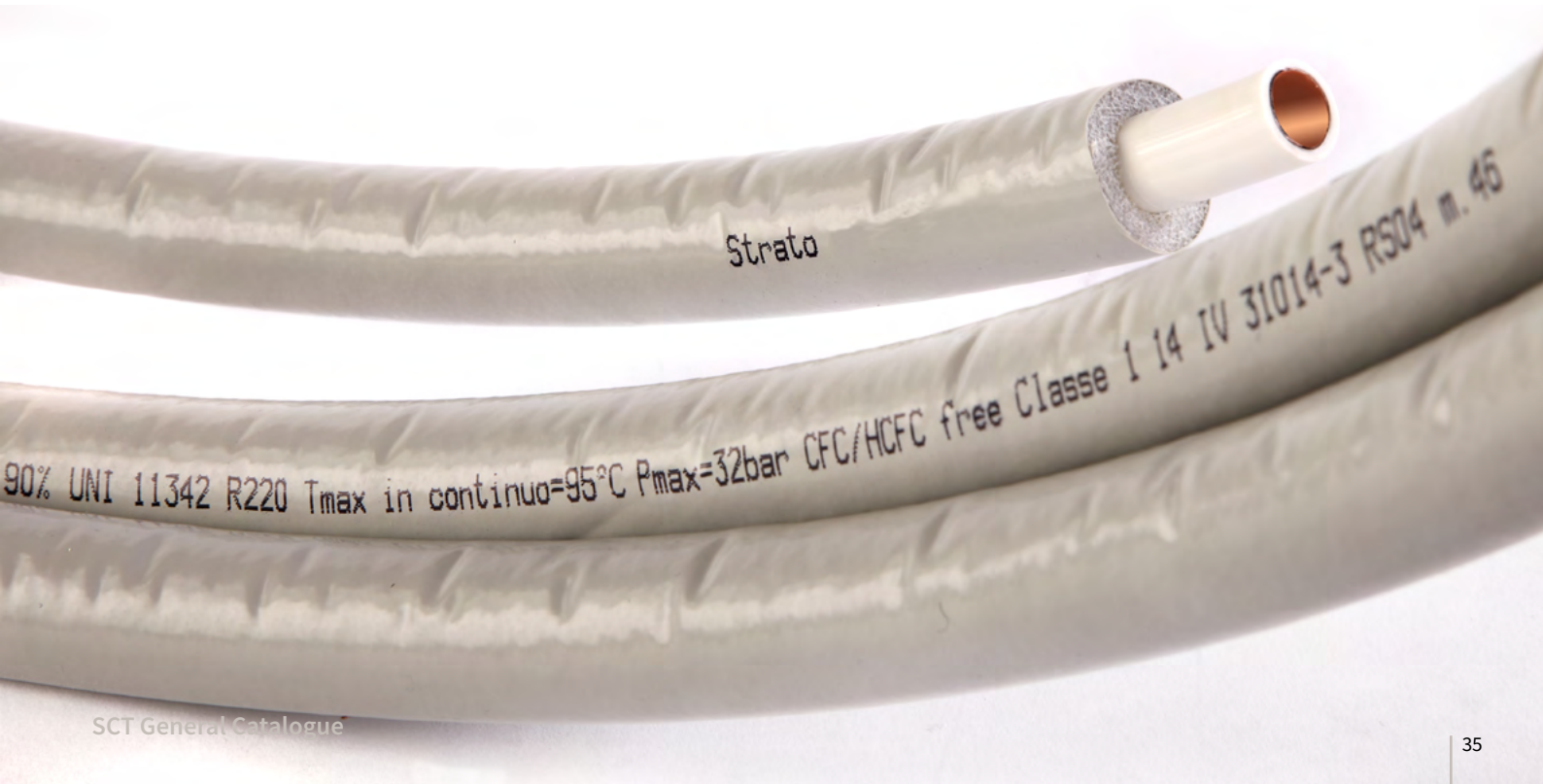
• Flexibility and workability
Strato can also be bent by hand with small bend radii and takes on the new shape without suffering from any memory effect.

• Low thermal expansion coefficient
Unlike plastic tubes, the thermal expansion is extremely limited, thus ensuring dimensional stability also under considerable temperature variations in the transported fluid.

• Low-pressure drops
Strato has an extremely low internal roughness (1,5 µm compared to 7 µm in traditional multi-layer material). This means a reduced pressure drop and reduced risk of limescale incrustations.

JOINTING TECHNIQUES

Strato is compatible with all couplings and fittings compliant to EN 1254-8 normally used with multilayer tubing.
The particular advantage of Strato is offering an “open solution” not restricted to any specific connection type.
Various combinations are available, compatible with the most important fitting brands on the market, including full bore solutions.
The latter allows for lower tube diameters and thus lower installation budgets, both in terms of tube material costs and reduced masonry work.
Various coupling techniques are available (press fittings, screw fittings and quick-coupling).



INSTALLATION

Cutting to length

Deburring, calibration

Jointing

CUTTING TO SIZE

Cutting, calibrating and deburring can be performed with common commercially available tools.

BENDING

Strato can be easily bent by hand or with a normal copper tube bending tool.

JOINTING

You can use various types of mechanical fittings (press fittings, quick coupling, compression) available on the market.

Press-fitting
(Alternatively you can use compression or quick coupling solutions)

TUBE TECHNICAL SPECIFICATIONS

Dimensions and tolerances:	according to UNI 11342
Inner contact material:	copper Cu-DHP (Cu:99,9% min. P: 0,015 ÷ 0,040%)
Internal surface roughness:	1,5 µm
Outer layer:	PE-RT
Max working temperature:	95°C (constant exposure)
Unit break load:	R. min. ≥ 220 Mpa (N/mm^2)
Elongation percentage:	A_5 min. > 40%

INSULATION TECHNICAL SPECIFICATIONS

Insulating material:	Closed cell crosslinked polyethylene (PEX)
Insulation sheath thickness:	6 mm/9 mm
Insulation thermal conductivity (λ):	0,039 W/mK
Average insulation density:	30 kg/m^3
Water vapour diffusion resistance (µ):	> 9.000
Fire resistance:	Class 1 (M.D. 26/06/84)
Resistance to chemical agents:	very good (ASTM 543-56 T)
Sound absorption:	~60% (DIN 4109 300-2500Hz)

TABLE OF STANDARD PRODUCT DIMENSIONS - COILS

dimensions Ed x Th	coil length min. guaranteed	sheath thickness	operating pressure ASTM	water content	min. curvature radius with bending tool	min. manual bending curvature radius
(mm)	(m)	(mm)	(bar)	(l/m)	(mm)	(mm)
14 x 2	50	6	35	0,079	56	84
16 x 2	50	6	32	0,113	64	96
20 x 2	50	6	25	0,201	80	120
26 x 3	25	9	25	0,314	104	156
32 x 3	25	9	23	0,531	128	192

Ed = External diameter Th = wall thickness