Strato

HIGH PERFORMANCE THANKS TO A CORE OF COPPER

FIELDS OF APPLICATION:

- Drinking water distribution
- Radiator heating
- Chilled water distribution

In compliance with and within the limits set by the regulations in force.

Strato is a seamless composite tube with a copper core, combining the ease of installation of multilayer systems with the superior performance of copper in terms of mechanical strength, pressure tightness, hygiene and durability.

The product is made according to the UNI 11342 standard by means of an permanent co-extrusion of a reduced-thickness copper tube with a polyethylene layer. Externally it is pre-insulated with closed-cell expanded polyethylene, compliant with the thermal-insulation requirements set by the regulations on energy-consumption containment (Law 10/91 and subsequent updates).

Thanks to the internal copper surface, Strato is suitable for the distribution of drinking water and for high-temperature heating systems, ensuring natural bacteriostaticity, low pressure drops and the absence of contamination.

MAIN ADVANTAGES

- High resistance to pressure and temperature, thanks to the metal core
- Hygiene and bacteriostaticity: the fluid is in contact exclusively with copper
- No longitudinal welds, unlike traditional multilayer tubes
- Total impermeability and oxygen barrier, ideal for heating systems
- Flexibility and ease of installation, with no memory effect
- Reduced thermal expansion, with high dimensional stability
- Low pressure drops, thanks to the very low internal roughness (~1.5 µm)

JOINING TECHNOLOGY

Strato is compatible with fittings compliant with EN 1254-8 commonly used in multilayer systems.

It is an open solution, not tied to a proprietary system, compatible with fittings of the following types:

- Press
- Compression
- Quick push-fit.

Full-bore fittings are also available, allowing the use of smaller diameters with economic advantages and reduced masonry work.

INSTALLATION

- Cutting, calibration and deburring with standard market tools
- Manual bending or using standard copper-tube benders
- Joining by means of commercially available mechanical fittings.

TECHNICAL CHARACTERISTICS OF THE TUBE

- Dimensions and tolerances: according to UNI 11342
- Internal contact material: Cu-DHP copper
- Internal surface roughness: 1.5 µm
- Outer layer: PE-RT
- Maximum continuous operating temperature: 95 °C continuous
- Ultimate tensile strength: R. min. ≥ 220 MPa (N/mm^2)
- Elongation: A5 min. > 40%

TECHNICAL CHARACTERISTICS OF THE INSULATION

- Insulating material: Cross-linked polyethylene (PE-X), closed-cell expanded
- Insulating sleeve thickness: 6 mm/9 mm
- Thermal conductivity of the insulation (λ): 0.039 W/mK
- Average insulation density: 30 kg/m^3
- Water-vapour diffusion resistance (µ): > 9000
- Reaction to fire: Class 1 (Ministerial Decree 26/06/84)
- Resistance to chemical agents: very good (ASTM 543-56 T)
- Sound absorption: ~60% (DIN 4109 300-2500Hz)

TABLE: STANDARD SIZES - COILED TUBES

Size OD x WT (mm)	Min. Guaranteed Coil Length (m)	Min. Coating Thickness (mm)	ASTM Working Pressure (MPa)	Water Content (l/m)	Min. Bending Radius With Bender (mm)	Min. Manual Bending Radius (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

OD = Outer Diameter WT = Wall Thickness