



MULTILAYER PIPE MULTISKIN 4

COMAP

Aluminium thickness: 0,4 mm (ø 16)

- Thick layer of aluminium: 0.4 mm (ø 16)
- Ease in bending
- Better cohesion of the three layers
- Retains all bending (no "return" as with pipes with thinner aluminium cores)
- Absolute oxygen barrier (no risk of sludge)
- Low expansion (eight times less than PEX pipe)

Exterior and interior layers in PEX

- High corrosion resistance
- Resistance to scaling
- Lightness (three times lighter than copper)
- Limits the risk of theft on work sites
- Compatible with sanitary work



< Internal PEX layer
(cross-linked
polyethylene)

< High performance glue

< Heavy aluminium core and
butt welding

< High performance glue

< External PEX layer
(cross-linked
polyethylene)

DESCRIPTION

COMAP offers a range of MultiSkin4 multilayer pipes with high temperature and pressure resistance thanks to their thickened aluminium core.

Produced according to the EN ISO 21003 standard, the pipes are available in lengths, rolls, in conduit and pre-insulated.

Characteristics of the product

- Sizes available: from 14 to 63 mm.
- Five layers of: cross-linked polyethylene (PEX) / Adhesive / Aluminium / Adhesive / cross-linked polyethylene (PEX)
- Butt welding of the aluminium core ensures consistent thickness and maximum oxygen sealing over the entire length of the pipe.
- Thickness of aluminium: 0.4 mm (Ø16mm)
- Available in several configurations: bare, in conduit, pre-insulated (6, 10 or 13 mm thick) and paired.

ADVANTAGES

Performance

- Multilayer pipe offers great working comfort: it is easy to transport and simple to install thanks to manual bending and rapid cuts.
- Multilayer pipes require on average half as many fittings as metal pipes
- With its high aluminium density, MultiSkin 4 pipe maintains perfect linearity and generates no remanence during bending.

Safety

- Lightweight and convenient to carry in individual cartons of 100 m, the multilayer pipe limits difficult working conditions and risks related to heavy loads.
- Significantly lower risk of theft on work sites compared to copper.



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CHARACTERISTICS

Dimensions of MultiSkin4 pipe

| Diameter of D pipe (mm) | 14 | 16 | 18 | 20 | 26 | 32 | 40 | 50 | 63 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inside diameter (mm) | 10 | 12 | 14 | 16 | 20 | 26 | 33 | 42 | 54 |
| Thickness (mm) | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.5 | 4.0 | 4.5 |
| Thickness of aluminium | 0.40 | 0.40 | 0.40 | 0.40 | 0.50 | 0.70 | 0.70 | 0.90 | 1.20 |
| Minimum radius of manual bending (mm) | ≥ 5xD | ≥ 5xD | ≥ 5xD | ≥ 5xD | ≥ 5xD | ≥ 5xD | - | - | - |
| Minimum radius of bending with tools (mm) | ≥ 3xD | ≥ 3xD | ≥ 3xD | ≥ 3xD | ≥ 3xD | ≥ 3xD | - | - | - |
| Weight (g/m) | 108 | 125 | 132 | 147 | 285 | 390 | 528 | 766 | 1155 |
| Capacity (l/m) | 0.079 | 0.113 | 0.154 | 0.201 | 0.314 | 0.531 | 0.855 | 1.385 | 2.290 |

PIPE IN CONDUIT



The polypropylene conduit protects COMAP pipes for applications such as recessed installation in walls or slabs.

The following minimum conditions apply to conduits:

- Crush resistance (450 Newton) according to NF EN 61386-1 and NF EN 61386-22
- Waterproof (duct watertight over its entire length).

PRE-INSULATED PIPE



COMAP provides a range of pre-insulated pipe (6, 10 and 13 mm thick). Insulating hot water pipes avoids energy losses between boilers and the heat distribution points.

Insulation is done with materials that do not deteriorate at operating temperatures and whose aging does not affect the operation of the system. The insulated pipe meets the requirements of the thermal regulations.

Quality standard: UNI EN ISO 9002-94

lambda value: 0.040 W/mK at 40°C

Class of fire resistance: 1-UNI 9177 and UNI 8457



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APPLICATIONS

Application classes of COMAP multilayer pipe according to EN21003

| Class | Service regime | Maximum regime | Degraded regime | Application type |
|-------|--|-------------------|-----------------|--|
| 2 | 70°C 49 years | 80°C One year | 95°C 100 h | Hot and cold sanitary water supply |
| 4 | 20°C 2.5 years 40°C 20 years 60°C 25 years | 70°C 2.5 years | 100°C 100 h | Low temperature radiators and underfloor heating |
| 5 | 20°C 14 years 60°C 25 years 80°C 10 years | 90°C One year | 100°C 100 h | High temperature radiators |

The use of COMAP multilayer pipes is particularly suitable for new work: easy to handle (manual bending, use of dispenser, lightness of the pipe). Decent appearance in exposed settings with no need to paint pipes and less risk of theft on construction sites, unlike coppers

Table of applications of fittings systems for multilayer pipes

| Application | Description | Operating temperature | Maximum operating pressure |
|---------------------|---|-----------------------|----------------------------|
| Sanitary water | Hot and cold drinking water systems | 5°C to 95°C | 10 bar |
| Heating and cooling | For water heating systems and networks | -10°C to 95°C | 10 bar |
| Rainwater | For rainwater evacuation systems in buildings | -10°C to 95°C | 10 bar |
| Compressed air | For oil-free compressed air systems * (with oil filter in front of the system). | -10°C to 70°C | 10 bar |

*Less than 25mg/m3 of oil
Or any other application, please contact COMAP.

WARRANTY AND CERTIFICATIONS

COMAP multilayer pipes are warranted to be free from defects in materials and workmanship for a period of 10 years from the date of purchase. They may only be used with COMAP fittings.

Warranty subject to conditions. Please contact your COMAP representative for our detailed warranty conditions.

Certification:

