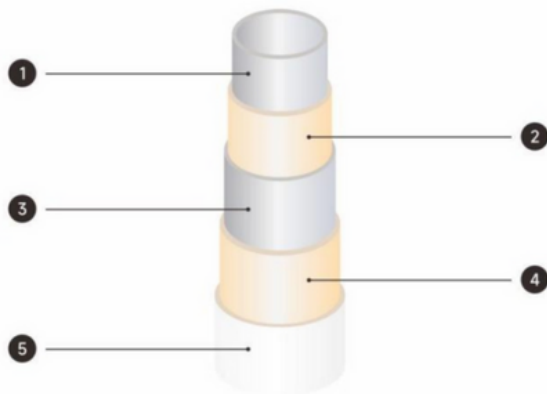


COMPOSITION

1. Inner pipe in PE-RT.
2. Connection layer that joins the inner pipe with the aluminium pipe.
3. Aluminium pipe seam welded (thickness 0.21 mm for the size Ø 12x1.6, thickness 0.25 mm for the size Ø 15x2.0, thickness 0.25 mm for the size Ø 16x2.0).
4. Connection layer that joins the external pipe with the aluminium pipe.
5. External pipe in PE-RT.



DETAILS

Made of composite material through a technologically advanced process, PE-RT pipe is made and reinforced by an aluminium core, welded and externally coated by another PE-RT layer to form MLCP.

The MLCP combines the excellent characteristics of the PE-RT with the properties of the thin metal layer, which determines new benefits:

- Shape stability combined with excellent flexibility
- Contained linear expansion, similar to a metal pipe
- Oxygen barrier 100% safe
- Good thermal conductivity

MLCP is the ideal pipe to easily lay underfloor heating circuits. Its ability to maintain its shape allows for a considerable reduction of clips on the panels.

DIMENSION DATA

External diameter Ø mm	12	16
Internal diameter Ø mm	8.8	12
Overall thickness mm	1.6	2.0
Aluminium sheet thickness mm	0.21	0.25
Weight Kg/m	0.065	0.1
Water content l/m	0.05	0.11
Pipe roll length m	80/160/240	50/80/100/200/ 300/500

TECHNICAL DATA

Classes of application (UNI EN ISO 21003): 2/10 bar, 5/10 bar Maximum operating conditions for 50 years:

- Design temperature TD = 70°C
- Design pressure PD = 10 bar
- Max temperature for short periods: 95 °C
- Coefficient of linear expansion: 0.026 mm/m °C
- Thermal conductivity: 0.45 W/m K
- Minimum radius of bending: 5 x D
- Pipe surface roughness of the internal tube: 1-1.4 µm
- Fire reaction class: EL (EN 13501-1)

MARKING EXAMPLE OF MLCP 16*2.0

001M MULTILAYER PIPE Butt-welded TYPE I 16X2.0mm WRAS approved T=95°C
P=10bar ISO 21003 CLASS 2/10bar, 5/10bar hh:mm:ss dd/mm/yy

KEY

001M	Progressive roll length
MULTILAYER PIPE	Trade name pipe
Butt-welded	Welding manner
TYPE I	Layer material indication
16X2.0mm	Size
WRAS approved	The pipes have been certified by WRAS
T=95°C	Maximum temperature for short periods
P=10bar	Maximum pressure
ISO 21003	Technical regulation
CLASS 2/10bar, 5/10bar	Application classes combined with operating pressure
hh:mm:ss dd/mm/yy	Time, date

	12mm		
Length of rolls	80	160	240
Size of packaging	48.5x12x48.5	61x12x61	56x20x56

	16mm					
Length of rolls	50	100	150	200	300	500
Size of packaging	39x20x39	52x20x52	60x19.5 x60	66x19x66	85x20x85	100x100x180

REGRESSION CURVES OF MLCP

Example of reading The maximum allowable pressure (Pmax) for a duration of 50 years at a certain temperature is identified by intersecting the line (vertical) relating to 50 years with the line (coloured) relating to the temperature. Note the operating pressure provided for (Pes), the safety coefficient will be equal to $k_s = P_{max}/P_{es}$.

