



Tio multilayer pipes cross-link the best qualities of both metal and plastic pipes in one single system. It combines the advantages of aluminium with the corrosion resistance of plastic. The stability of the TIOMLC pipe is ensured by the laser edge welded aluminium. The pipe is built on a 5 layer structure, where the internal and external layers are made of PE-RT type II and the middle layer is made of aluminium and all layers are connected by a special bonding agent.

The pipes internal wall surface is extremely smooth, avoiding corrosion phenomena, limescale or deposits. TIOMLC pipes are flexible and easy to bend. The lightweight of the pipe is also an advantage for its use on wall-mounted installations. TIOMLC pipes can be used for drinking water applications as well as for heating and cooling systems and other industrial applications.

**Applications:**

- Heating and Underfloor
- Industrial Facilities
- Surface Heating/Cooling
- Cooling Systems
- Snow and Ice Removal Systems
- Hot and Cold Water Distribution

**Dimensions**

Description	Coils	Diameter (mm)	Tolerance (mm)	Thickness (mm)	Tolerance (mm)
PERT-AI-PERT	100/200/240/500	16	16 - 16.3	2.0	1.90 - 2.30

**Certifications\***

**PE-RT/ AI / PE-RT pipe produced according to AENOR (Spain), SKZ (Germany), WRAS (UK)**

\* Standardized certifications according to UNE-EN ISO 21003

**Physical properties**

Material:	High temperature resistance polyethylene (PE-RT)
Density:	> 0,941 g/m <sup>3</sup>
O <sub>2</sub> permeability:	< 0.0010 g/m <sup>3</sup> .d

**Thermal Properties**

Working temperature range:	95°C
Maximum temperature:	110°C
Thermal conductivity (60°C):	0.43 W/m <sup>2</sup> K
Coefficient of linear extension	0.025 mm/m <sup>2</sup> K

Design pressure according to ISO 21003	Temperature	Max pressure
	20°C	15 bar
	40°C	10 bar
	60°C	8 bar
	70°C	7 bar

**Mechanical Properties**

Tensile strength :	> 22 N/mm <sup>2</sup>
Elongation at break:	>400%
Modulus of elasticity (20°C):	>800 N/mm <sup>2</sup>

Resistance to internal pressure	40 bar (20°C, 1h)
	40 bar (20°C, 1h)
	40 bar (20°C, 1h)
	40 bar (20°C, 1h)

Product Code	Product Description
TIOMLC0001	PE-RT Alu PE-RT Multilayer Pipe 16 X 2mm 100m Coil
TIOMLC0002	PE-RT Alu PE-RT Multilayer Pipe 16 X 2mm 240m Coil
TIOMLC0003	PE-RT Alu PE-RT Multilayer Pipe 16 X 2mm 500m Coil
TIOMLC0004	PE-RT Alu PE-RT Multilayer Pipe 16 X 2mm 200m Coil