

# PIPE TECHNICAL DATA

MLCP  
PE-RT EVOH

PRODUCTS FOR THE BUILT ENVIRONMENT



[www.tioclimatesolutions.co.uk](http://www.tioclimatesolutions.co.uk)

# MLC PIPE



Our pipe is made under license of the HeliKlima pipe made in the EU by Heliroma Plasticos  
Certificate Number 2107523

## PIPE

### MULTILAYER PE-RT / AL / PE-RT – TIO

#### Raw Material:

PE-RT type II | Aluminium

#### Standards:

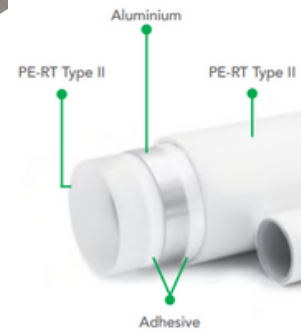
EN ISO 21003 | ISO 22391 | RP 001.71 | HR3.12

#### Application Fields:

- Drinking water supply systems;
- Heating and cooling systems;
- HVAC systems;
- High temperature heating systems;
- Low temperature heating systems;
- Underfloor heating and colling;
- Compressed air systems.

#### Profile:

∅ 16-75 mm - U | ∅ 75-110 mm – Flanged



Tio multilayer (TIOMLC) pipes cross-links the best qualities of both metal and plastic pipes in one single system.

It combines the advantages of metal with the corrosion resistance of plastic. The stability of the TIOMLC pipe is ensured by the laser edge welded aluminium.

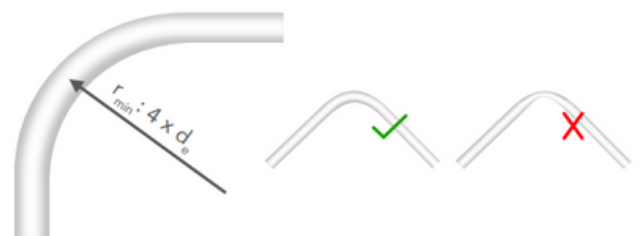
The pipe is built on a 5 layer structure, where the internal and external layers are made of PE-RT type II and middle layer is made of aluminium being all layers connected by a special bonding agent.

TIOMLC pipes can be used for drinking water applications as well as for heating and cooling systems and other industrial applications. The pipe internal wall surface is extremely smooth, avoiding corrosion phenomena and 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.

## PIPE BENDING

The PE-RT / AL / PE-RT – TIOMLC pipe, diameters 16mm which can be bent using a bending tool. Make sure to comply with the specified minimum bending radius. The minimum bending radius refers to the centre of the pipe.



# PE-RT PIPE

## PIPE

### PE-RT / PE-RT EVOH PIPE

#### Raw Material:

PE-RT type II

#### Standards:

ISO 22391 | DIN 16833 | DIN 16834 | RP01.67

#### Application Fields:

- Underfloor heating and cooling;
- Wall heating and cooling;
- Ceiling heating and cooling;
- Heating systems in general;
- Sanitary system

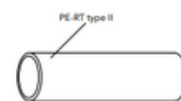
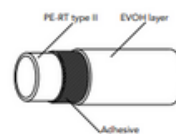
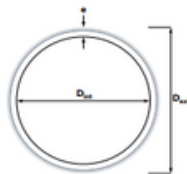
#### Profile:

DIMENSION 16x2.0

EXTERNAL DIAMETER Dext (mm) Min 16 Max 16.3

EXTERNAL DIAMETER Dext (mm) Min 2.0 Max 2.2

INNER DIAMETER Dint (mm) 12.0



TIOPER is a pipe made of a specially modified polyethylene – PERT type II, with a unique molecular structure and composition which ensures very good thermal stability, high degree of mechanical strength up to temperatures of 90°C and a good long term hydrostatic strength behaviour.

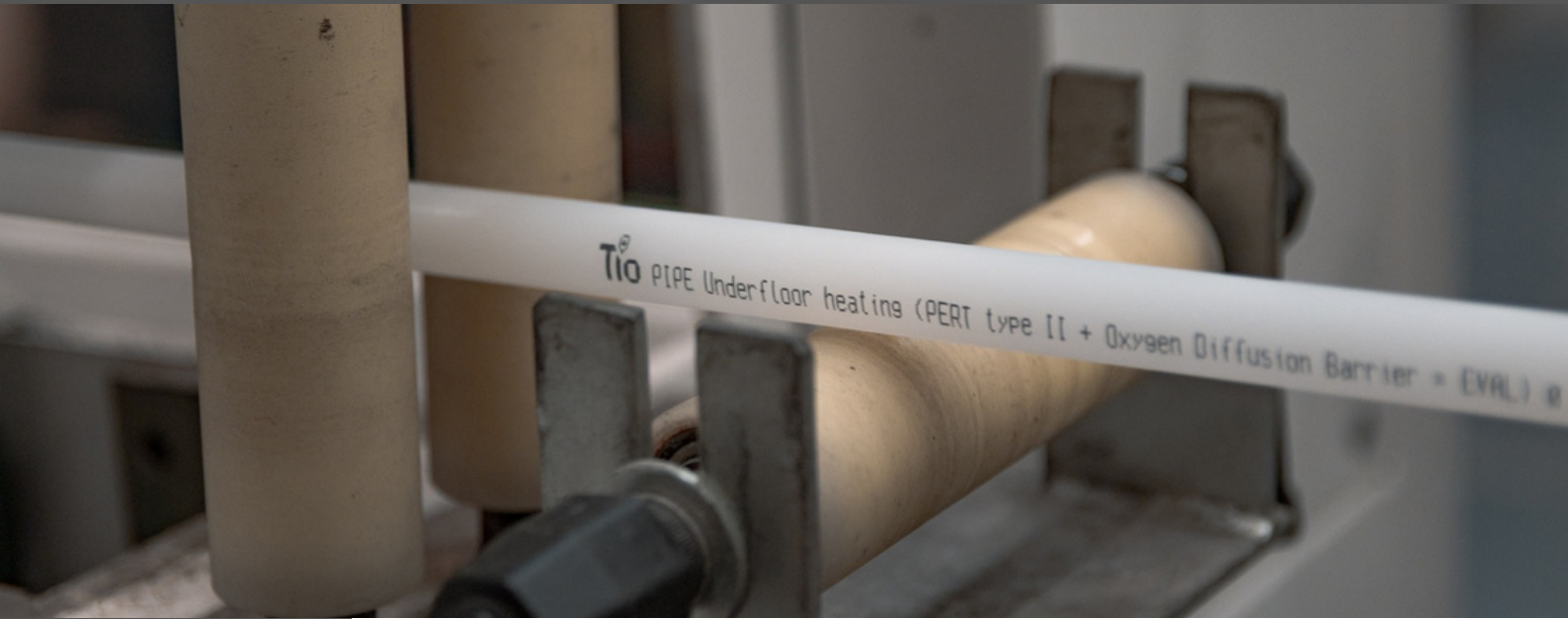
TIOPER can be supplied in a monolayer without an oxygen barrier – PE-RT type II, or a multilayer pipe with an oxygen barrier – PE-RT type II w/EVOH.

The oxygen barrier is achieved by an ethylene vinyl alcohol – EVOH layer, that prevents oxygen penetration in the system which reduces corrosion within the system, preventing premature failing of system compounds. The EVOH layer provides excellent functional barrier against organic solvents, an excellent and exceptional elasticity, protecting product integrity. In a multilayer pipe, all layers are connected permanently using force-fit methods via an adhesive.



# PIPE

Produced within the EU to BS EN ISO 22391 under ISO9001 quality control



## **3 LAYER PE-RT EVOH UFH PIPE** **TIOPER0001/TIOPER0002/TIOPER0003**

The standard 3 layer PE-ERT pipe is used regularly in screed and is the most common pipe for UFH use.



## **PERT ALU PERT MULTILAYER PIPE** **TIOMLC0001/TIOMLC0002/TIOMLC0003/TIOMLC0004**

MLCP pipe that is PE-RT/AL/PE-RT Pipe, this has better output characteristics and is easier to install in our floor grid system

<b>TIOPER0001</b>	<b>100M COIL, 16 X 2.0 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOPER0002</b>	<b>240M COIL, 16 X 2.0 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOPER0003</b>	<b>500M COIL, 16 X 2.0 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOPER0004</b>	<b>80M COIL, 12 X 2.0 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOPER0005</b>	<b>240M COIL, 12 X 2.0 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOPER0006</b>	<b>400M COIL, 20 X 2.0 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOPER0007</b>	<b>80M COIL, 10 X 1.25 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOPER0008</b>	<b>240M COIL, 10 X 1.25 3 LAYER PE-RT EVOH UFH PIPE</b>
<b>TIOMLC0001</b>	<b>100M COIL, 16 X 2.0 PERT ALU PERT MULTILAYER PIPE</b>
<b>TIOMLC0002</b>	<b>240M COIL, 16 X 2.0 PERT ALU PERT MULTILAYER PIPE</b>
<b>TIOMLC0003</b>	<b>500M COIL, 16 X 2.0 PERT ALU PERT MULTILAYER PIPE</b>
<b>TIOMLC0004</b>	<b>200M COIL, 16 X 2.0 PERT ALU PERT MULTILAYER PIPE</b>



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