



terrendis  
by **MrPEX** SYSTEMS



## Terrendis pre-insulated pipe solutions



Easy to install



Cost-effective



Energy-saving



# The perfect solution for your energy distribution system

Suitable for installation in the most difficult site conditions, the lightweight and maintenance-free Terrendis pipe is available in coils of lengths up to 328ft.

Benefiting from its unrivalled flexibility, our pre-insulated pipes significantly reduce the need for joints, practically eliminating the risk of leakage in the buried network, saving on both installation cost and time.

Terrendis insulates a full range of superior quality PEX-a core pipes from 0.75" up to 4.5" in a wide variety of double walled jacket pipes, ranging from 2.9" up to 8.8".

Completed with a comprehensive range of robust couplings and accessories, all of our products are readily available from stock and can be delivered directly on site.



**For flexible, durable and sustainable underground piping networks in commercial and residential settings**

**Serving a variety of hydronic heating, cooling, sanitary and potable water applications**



guest houses, bungalows, housing developments

geothermal, air & ground water heat pumps

## Product overview

### Superior quality, crosslinked PEX-a core pipes (PN6 or PN10 - 203°F)

- Single, Double and Quadruple combinations available
- Color coded supply and return identification
- Excellent abrasion and chemical resistance
- Low friction coefficient

### Multilayer, microcellular, crosslinked foam insulation

- Excellent thermal insulation properties
- Non-ageing, constant insulation performance
- Permanent elastic shape-memory
- Water repellent closed cell structure

High grade, double walled, corrugated pipe jacket, combining maximal flexibility with outstanding mechanical protection



## Product matrix

Unique combinations of core pipe dimensions with different insulation thicknesses.

PEX-a carrier pipes from 0.75" up to 4.5" in double walled jacket pipes from 2.9" up to 8.8"

Designed in accordance with the European standard EN 15632 - 1 & 3

ISO 9001 certified manufacturer of pre-insulated plastic pipe systems

All pipe types and dimensions available in coils up to 328ft.



#### Heating

(PEX-a / SDR11 / PN6 / 203 °F)



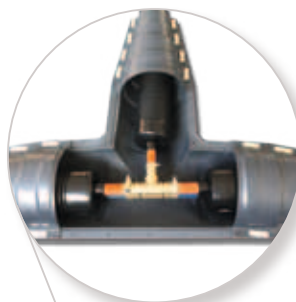
#### Sanitary hot (potable) water

(PEX-a / SDR7.4 / PN10 / 203 F)



## Accessories

Broad standard pipe system offering, completed with a comprehensive range of accessories.



condomiums, dwellings, appartments



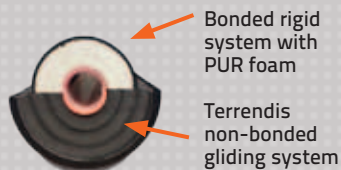
schools, universities, institutions



# Advantages of Terrendis' flexible pipe systems



## Easy to install



## Best flexibility

There are two main types of pre-insulated pipe systems: bonded polyurethane (PUR) hard foamed systems and non-bonded PE(-X) sheet foamed systems. In bonded systems, core pipe(s), insulation and outer jacket pipe are completely glued together by the PUR hard foam, resulting in a rigid piping system.

The insulation in non-bonded systems, such as Terrendis, consists of different layers of cross-linked microcellular PEX foam with closed cell structure, wrapped around the core pipe(s).

The different insulation layers in a non-bonded pipe system can slide independently from each other and from the core pipe(s). Also the smooth inner surface of the pipe jacket eliminates friction with the outer insulation layer. This results in a significantly improved flexibility of the pre-insulated pipe, making it much easier to install.

Mounting connectors on a non-bonded system is also very easy, where a bonded PUR system involves substantially more time and precision from the installer to properly strip the core pipe(s).



snow melting systems



biomass, biogas, CHP plants





## Cost-effective

## More than 60% savings in labor and installation costs

Terrendis flexible plastic pipes vs traditional rigid steel pipes

- Lightweight and very flexible, making the installation process easier and quicker
- Long coils requiring fewer underground couplings, reducing potential leak points.
- No skilled welders, special assembly tools, or expansion loops required.
- More than 60% savings in labor and installation cost
- No issue with corrosion reducing the longevity of the core pipes, resulting in a lower total cost of ownership



Terrendis flexible pre-insulated pipe



traditional rigid steel pipe

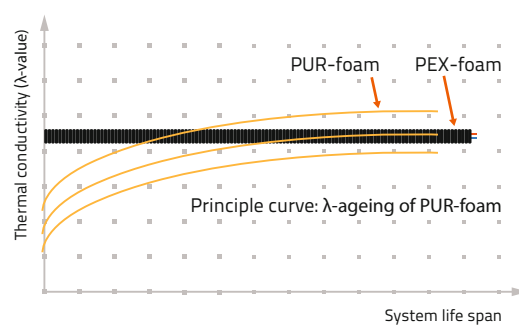


## Energy-saving

## Constant thermal insulation performance

PUR insulated pipes can partially lose their insulating efficiency over time due to diffusion of the volatile blowing agents used in the process. This phenomenon is called "lambda ageing". Additionally, coiling and bending these pipes causes breakage of the PUR foam cells. This also significantly impacts the system's thermal performance.

On the other hand, even after bending multiple time, the crosslinked microcellular PEX foam always recovers its original volume due to the unique shape-memory, providing a constant thermal performance throughout the lifetime of Terrendis' pre-insulated piping systems.



commercial buildings, shopping malls

industrial excess heat, incineration plants





Plastics



People



Customisation



Sustainability

## Terrendis at your service

As a subsidiary of the French private industrial RYB group, a leading plastic manufacturer, Terrendis combines the required flexibility, experience and know-how to best serve its market.

- 50+ years of experience in extrusion of plastic pipes, 10+ years of know-how in pre-insulated plastic pipes and applications
- Innovative and technologically advanced partner offering unique geolocation capabilities for our pre-insulated piping solutions
- Support team for assistance in network design, product selection and system optimisation
- Availability of technical experts for on-site training and installation support
- Possibility to produce specific customized pre-insulated pipes
- Sustainable manufacture, products and solutions

We can respond to our customers' specific needs more quickly and easily, and with a sharper focus



district cooling



swimming pools, leisure parcs, holiday resorts



# Eliot® geo-location

Terrendis + ELIOT,  
a smart pre-insulated piping solution!

- Highly accurate geo-referencing up to 5 ft deep
- Unhindered by soil conditions
- Enables immediate closing of trenches
- Transfer of GPS coordinates and tag-stored information into any Geographic Information System
- Improved traceability and network control
- Advanced asset management

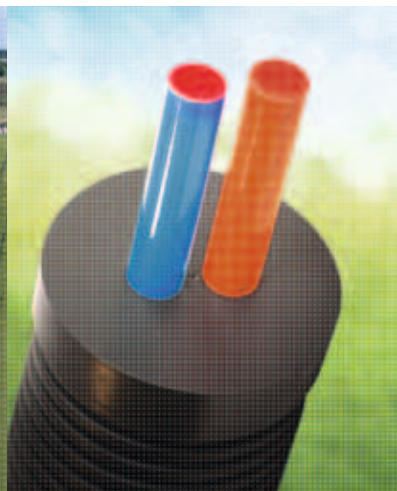
Unique ability to integrate ELIOT, a proprietary RFID-based Detection, 3D-location and identification system for buried assets, into your pre-insulated piping solution.



waste water, sewage

Eliot





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