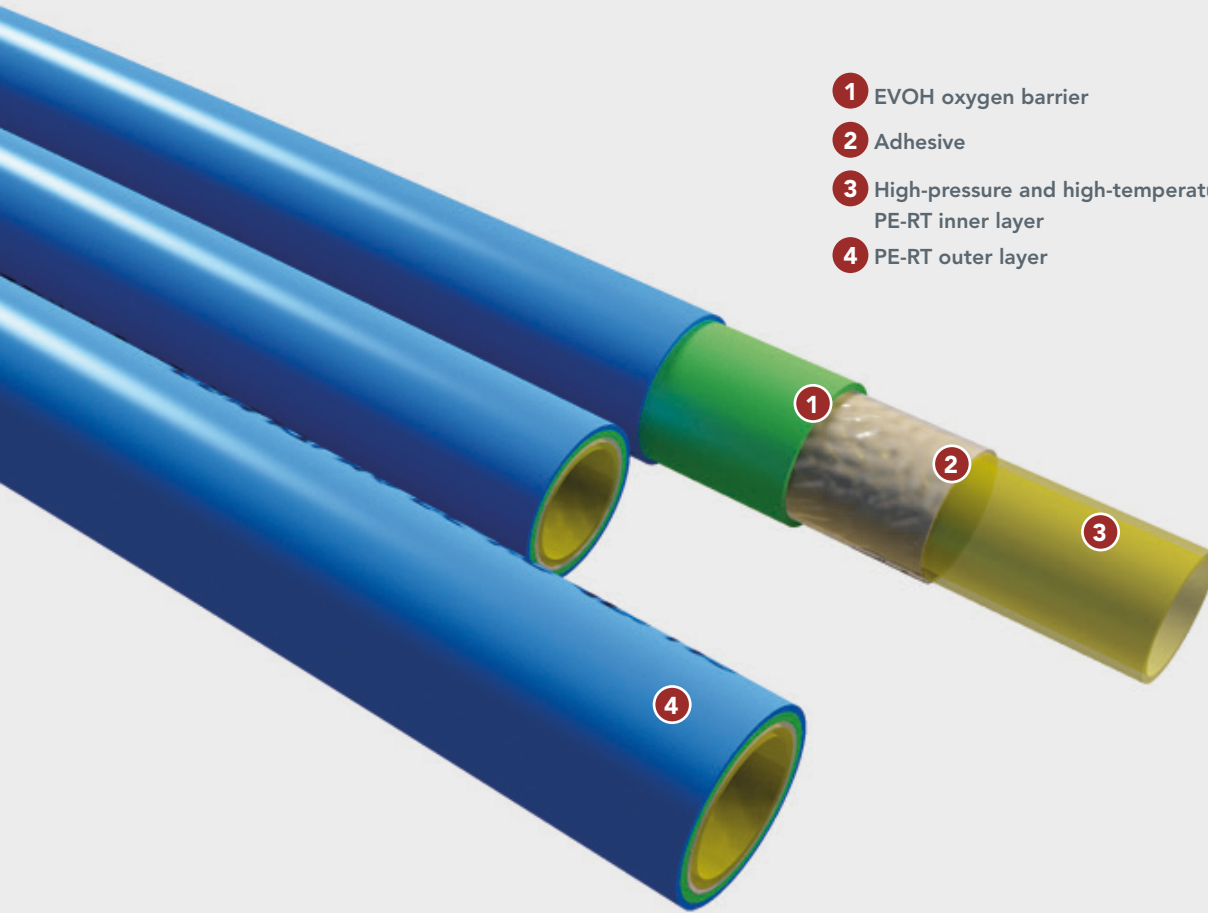


HI-PERFORMANCE PLUS PIPES



- 1 EVOH oxygen barrier
- 2 Adhesive
- 3 High-pressure and high-temperature resistant PE-RT inner layer
- 4 PE-RT outer layer

Hi Performance Plus pipes are made of a polymer resin, which has the traditional properties of polyethylene, with the addition of important extra features such as **increased resistance to high temperatures and high pressures**.

They do not require the post-extrusion cross-linking processes typical of PE-X pipes, making it possible to obtain a product that is:

- **Homogeneous** along the entire length and surface, not subject to unevenness
- **Heat-sealable**
- Extremely **flexible** in all weather conditions
- **Shape memory**: for example, in the case of crushing, just heat it up to make it perfectly circular again
- Duration **over 50 years**

4 LAYERS

Hi Performance Plus pipes consist of 4 layers, unlike conventional pipes which have only 3 layers (Polyethylene - Adhesive - Oxygen barrier).

In fact, the EVOH (oxygen barrier) layer is covered by a 4th PE-RT layer that protects its integrity from mechanical damage (e.g. from dragging or rubbing on site).

OPERATING CONDITIONS ACCORDING TO ISO 10508 AND EN ISO 22391

| SIZE | OPERATING PRESSURE [BAR] | | | |
|------|--------------------------|---------|---------|---------|
| | FOR APPLICATION CLASS | | | |
| | CLASS 1 | CLASS 2 | CLASS 4 | CLASS 5 |
| 16X2 | 10 | 8 | 8 | 8 |
| 17X2 | 8 | 8 | 8 | 6 |
| 20X2 | 6 | 6 | 6 | 6 |

| APPLICATION CLASS | OPERATING CONDITIONS FOR A PERIOD OF 50 YEARS AND 100 HOURS OF WHICH | FIELD OF APPLICATION |
|-------------------|---|---|
| 1 | 49 years at operating temperature (TD) of 60°C, 1 year at maximum temperature (Tmax) of 80°C and 100 hours at malfunction temperature (Tmal) of 95°C | Hot water supply (60°C) |
| 2 | 49 years at operating temperature (TD) of 70°C, 1 year at maximum temperature (Tmax) of 80°C and 100 hours at malfunction temperature (Tmal) of 95°C | Hot water supply (70°C) |
| 4 | 2.5 years at operating temperature (TD) of 20°C, 20 years at operating temperature (TD) of 40°C, 25 years at operating temperature (TD) of 60°C, 2.5 years at maximum temperature (Tmax) of 70°C and 100 hours at malfunction temperature (Tmal) of 100°C | Low temperature underfloor heating and radiators |
| 5 | 14 years at operating temperature (TD) of 20°C, 25 years at operating temperature (TD) of 60°C, 10 years at operating temperature (TD) of 80°C, 1 year at maximum temperature (Tmax) of 90°C and 100 hours at malfunction temperature (Tmal) of 100°C | High temperature underfloor heating and radiators |

CLASS 1

Hi-Performance Plus pipes can be used for sanitary installations (Class 4 and 5) and heating installations (Class 1 and 2).

Hi Performance Plus polymer resins show excellent performance in internal pressure resistance tests at elevated temperatures, making them ideal for use in hot and cold water piping systems.

Independent tests according to ISO 9080 at 20°, 80°, 95° and 110° C consistently show the absence of knee in the regression curves before 10,000 hours.

Therefore, RBM Kilma Hi Performance Plus pipes can be used for all class 1 applications in the same way as PE-Xa and PE-Xc.