FLOMASTA PEX AND PB PIPES

Flomasta offers a variety of push-fit pipe options suitable for hot and cold water supply, and central heating. Flomasta pipes are available in straights or coils in different lengths and diameters. Flomasta pipe inserts must always be used when connecting Flomasta polybutylene or PEX pipe to Flomasta fittings.

FLOMASTA PB (POLYBUTYLENE) BARRIER PIPES

Flomasta PB pipe is more flexible than PEX and will lay flat without coiling back up. A greater bend radii means that fewer fittings are required and it can be easily manipulated into small spaces.

Key features and benefits of the range:

- **Ultra-flexible** - More flexible than other pipes, allowing you to easily manoeuvre it into awkward spaces. It's quick and easy to uncoil and the flexible material makes it easy to thread through joists.
- **Easy to handle**
- **Highest quality standard** - Flomasta easy to lay PB pipe is manufactured according to the most stringent standards and meets the same specification as other major brands.
- **Barrier layer** - Made up of 5 layers, with an EVOH Barrier.
- Backed by our market-leading 25 year guarantee*.

Technical specs:

- Full BS7291-Class S and WRAS approvals.
- Compatible with other BS7291 specified systems.
- Maximum service conditions of 82°C at 7 bar, or 12 bar at 20°C.
- Nominal wall thickness is: 15mmØ - 1.5mm / 2.0mm, 22mmØ - 2.0mm / 2.3mm.

* Providing that they are installed by a licensed plumbing contractor in line with the installation instructions and any applicable plumbing and heating requirements. Twistloc® products must also be installed to a pipe which has been produced in accordance with the plumbing and heating standards.

year 25 guarantee*

With full BS7291-Class S and WRAS approvals, specifiers and installers can be confident with the quality and reliability of this range.

bsi. Thermoplastic pipes & Associated fittings KITEMARK™

WRAS APPROVED PRODUCT

FLOMASTA PB PIPE

Dimensions	10mm	15mm	22mm	28mm
Outer diameter (mm)	10 ±0.1	15 ±0.1	22 ±0.1	28 ±0.1
Wall thickness (mm)	1.5-1.8	1.6-1.9	2.00-2.30	2.60-2.90
Weight / 100 (meters)	4.14kg	6.9kg	12.9kg	20.4kg
Standard lengths	3m & 6m	3m & 6m	3m & 6m	3m & 6m
Standard coil (meters)	50/100	25/50/100	25/50/100	25/50

Mechanical Properties of Flomasta PB Pipe:

Tensile strength (at break): mm/min	20Mpa
Elongation at break (minimum):	125%
Co-efficient of linear expansion (20°C)	1.5 x 10-4m/degree C
Co-efficient of linear expansion (82°C)	2.8 x 10-4m/degree C

Bending

For sharp bends standard elbow fittings should be used. Where slower 90° bends are required in 15mm Flomasta PEX Pipe it is often quicker, neater and cheaper to use a standard 15mm x 90° angle bracket/cold forming bend.

Gentle bends may be made using pipe clips on either side of the bend, positioned to maintain the bend radius.

The use of bending springs and skilled manipulation is not required. The pipe should not be heated with a blow-lamp or hot-air gun.

Minimum bend radi are as follows:

10mm Flomasta PB Pipe	45mm using pipe clips
15mm Flomasta PB Pipe	100mm using pipe clips
22mm Flomasta PB Pipe	175mm using pipe clips
28mm Flomasta PB Pipe	300mm using pipe clips

Expansion and Contraction

Compared with steel or copper, Flomasta PB Pipe has a high coefficient of expansion and precautions should be taken to compensate for this. The coefficient of expansion for Flomasta PB Pipe increases from about 1.5 x 10-4m/°C at 20°C to approximately 2.8 x 10-4m/°C at 82°C.

N.B. Allow for 1% expansion on the length when pipe is installed at 20°C for use up to 82°C.

Where Flomasta PB Pipe is to be surface mounted and used in visible situations for either hot-water supply or central-heating pipework, long straight runs should be avoided since some distortion may occur. Where this is not practicable, pipework should be boxed.

Care should be always taken to ensure that pipework is laid out to allow for expansion and contraction. Where appropriate, expansion loops may be employed.

Clipping

Pipe clips and trunking systems designed for use with copper tube may also be used with Flomasta PB Pipe. Clips should be positioned adjacent to fittings wherever possible, making due allowance for expansion and contraction of the pipework. Where Flomasta PB Pipe is to be surface mounted and visible, the following clipping distances are recommended:

Flomasta PB Pipe - 10mm, 15mm	20°C	60°C	80°C
Horizontal	500mm	400mm	300mm
Vertical	800mm	600mm	500mm
Flomasta PB Pipe - 22mm			
Horizontal	800mm	600mm	500mm
Vertical	1200mm	1000mm	800mm
Flomasta PB Pipe - 28mm			
Horizontal	800mm	600mm	500mm
Vertical	1200mm	1000mm	800mm

Where Flomasta PB Pipe is to be boxed in or installed under floors or in loft spaces etc, clipping distances can be increased, or the clips omitted altogether if the pipe is adequately supported by other means. Even if Flomasta PB Pipe dips slightly between the joints, the speed of water created by the pump is sufficient to move any bubbles of air that may be present in the system. Pump speeds of 1 .5m/s may be used with Flomasta PB Pipe without causing undue noise.

FLOMASTA PEX BARRIER (HIGH DENSITY CROSS-LINED POLYETHYLENE PIPE)

Our Flomasta PEX barrier pipe is available in a variety of both coiled and straight lengths and diameters. PEX is a great alternative to copper giving a more rigid pipe for a fraction of the cost of copper. It's approved to the BS7291 kitemark and has WRAS approval.

Key features and benefits of the range:

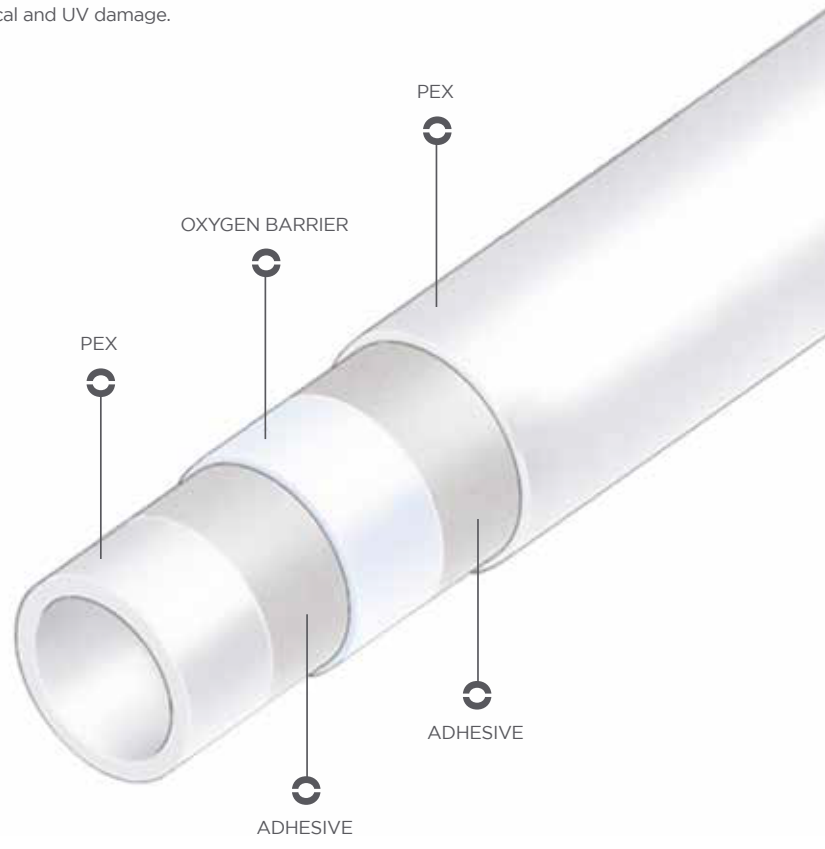
- Flexible crosslinked polyethylene plumbing pipe.
- White coloured.
- Developed, tested and approved for hot and cold water services, and central and underfloor heating systems.
- Includes an EVOH barrier layer which complies with DIN 4726.
- Rigid enough to minimise sagging, keeping pipe runs looking neat, tidy and professional.
- **Flexible enough to be threaded through awkwardly placed holes** under flooring and threaded behind partition walls and through ducts.
- Faster, easier and more cost-effective installation than other piping.

Technical specs:

- Manufactured, tested and certified according to BS7291 Class S and DIN 16892.
- The pipe meets the requirements for Class S service conditions as specified in Table 1 of EN15875 for **a guaranteed service life of 25 years**.
- Maximum service conditions of 92°C at 3 bar, or 12 bar at 20°C.
- Short term overload of up to 114°.
- Nominal wall thickness is: 10mmØ - 1.5mm / 1.8mm, 15mmØ - 1.5mm / 1.8mm, 22mmØ - 2.0mm / 2.3mm, 28mmØ- 2.6mm / 2.9mm.

Flomasta PEX barrier pipe improves the performance of sealed central heating systems by reducing the risk of pressure drops caused by vaporisation of water and corrosion in the boiler's heat exchanger.

It also includes an EVOH oxygen diffusion barrier layer which renders the pipe virtually impervious to gases. The layer is sandwiched within the wall of the pipe, protecting it from both physical and UV damage.



FLOMASTA PEX PIPE

Dimensions	10mm	15mm	22mm	28mm
Outer diameter (mm)	10 ±0.1	15 ±0.1	22 ±0.1	28 ±0.1
Wall thickness (mm)	1.5-1.8	1.6-1.9	2.00-2.30	2.60-2.90
Weight / 100 (meters)	4.14kg	6.9kg	12.9kg	20.4kg
Standard lengths	3m & 6m	3m & 6m	3m & 6m	3m & 6m
Standard coil (meters)	50/100	25/50/100	25/50/100	25/50

Mechanical Properties of Flomasta PEX Pipe:

Tensile strength (at break): mm/min	20Mpa
Elongation at break (minimum):	350%
Co-efficient of linear expansion (20°C)	1.5 x 10-4m/degree C
Co-efficient of linear expansion (82°C)	2.8 x 10-4m/degree C

Bending

For sharp bends standard elbow fittings should be used. Where slower 90° bends are required in 15mm Flomasta PEX Pipe it is often quicker, neater and cheaper to use a standard 15mm x 90° angle bracket/cold forming bend.

Gentle bends may be made using pipe clips on either side of the bend, positioned to maintain the bend radius.

The use of bending springs and skilled manipulation is not required. The pipe should not be heated with a blow-lamp or hot-air gun.

Minimum bend radi are as follows:

10mm Flomasta PB Pipe	45mm using pipe clips
15mm Flomasta PB Pipe	100mm using pipe clips
22mm Flomasta PB Pipe	175mm using pipe clips
28mm Flomasta PB Pipe	300mm using pipe clips

Expansion and Contraction

Compared with steel or copper, Flomasta PEX Pipe has a high coefficient of expansion and precautions should be taken to compensate for this. The coefficient of expansion for Flomasta PEX Pipe increases from about 1.5 x 10-4m/°C at 20°C to approximately 2.8 x 10-4m/°C at 82°C.

N.B. Allow for 1% expansion on the length when pipe is installed at 20°C for use up to 82°C.

Where Flomasta PEX Pipe is to be surface mounted and used in visible situations for either hot-water supply or central-heating pipework, long straight runs should be avoided since some distortion may occur. Where this is not practicable, pipework should be boxed.

Care should be always taken to ensure that pipework is laid out to allow for expansion and contraction. Where appropriate, expansion loops may be employed.

Clipping

Pipe clips and trunking systems designed for use with copper tube may also be used with Flomasta PEX Pipe. Clips should be positioned adjacent to fittings wherever possible, making due allowance for expansion and contraction of the pipework. Where Flomasta PEX Pipe is to be surface mounted and visible, the following clipping distances are recommended:

Flomasta PB Pipe - 10mm, 15mm	20°C	60°C	80°C
Horizontal	500mm	400mm	300mm
Vertical	800mm	600mm	500mm
Flomasta PB Pipe - 22mm			
Horizontal	800mm	600mm	500mm
Vertical	1200mm	1000mm	800mm
Flomasta PB Pipe - 28mm			
Horizontal	800mm	600mm	500mm
Vertical	1200mm	1000mm	800mm

Where Flomasta PEX Pipe is to be boxed in or installed under floors or in loft spaces etc, clipping distances can be increased, or the clips omitted altogether if the pipe is adequately supported by other means. Even if Flomasta PEX Pipe dips slightly between the joints, the speed of water created by the pump is sufficient to move any bubbles of air that may be present in the system. Pump speeds of 1 .5m/s may be used with Flomasta PEX Pipe without causing undue noise.