

Marley Polyethylene Pressure Pipes – Blue and Royal Blue

Marley Blue or Royal Blue are polyethylene (PE) pressure pipes mainly used for house connection and territorial supply water mains or pressurised sewer 12bar or 16bar rated.

PE pressure pipes have:

- › High resistance to stress cracking (ESCR)
- › Very high creep resistance
- › Very high resistance to rapid crack propagation
- › Long-term tensile strength
- › Good resistance to a wide range of chemicals

These properties have led to their widespread use for abrasive applications such as mine tailings and slurry transportation.

This BPIR is related to:

- › Marley Blue and
- › Marley Royal Blue - up to 63DN

General Product Information

- › Colour: Blue or Royal Blue
- › Manufactured to AS/NZS 4130 – Polyethylene (PE) pipes for pressure applications
- › “Blue”:
 - › From PE80, named “1200 Series”
 - › Maximum pressure ratings PN 12.5
 - › Sizing ranges from 20DN to 63DN
- › “Royal Blue”
 - › From PE100, named “1210 Series”
 - › Pressure rating PN 12 and PN 16
 - › Sizing ranges from 63DN to 560DN

Components of the range

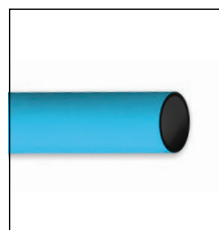
"Blue" Polyethylene pressure pipe

COILS - PE 80 BLUE CO-EX SKIN | Maximum : Pressure Rating PN 12.5 (12.5 bar) or (174 psi)



PRODUCT CODE	DIAMETER	LENGTH (M)
1200.20.25	20	25
1200.20.50	20	50
1200.20.100	20	100
1200.20.200	20	200
1200.25.25	25	25
1200.25.50	25	50
1200.25.100	25	100
1200.25.200	25	200
1200.32.25	32	25
1200.32.50	32	50
1200.32.100	32	100
1200.32.200	32	200
1200.40.25	40	25
1200.40.50	40	50
1200.40.100	40	100
1200.40.200	40	200
1200.50.25	50	25
1200.50.50	50	50
1200.50.100	50	100
1200.63.25	63	25
1200.63.50	63	50
1200.63.100	63	100

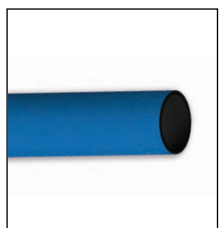
LENGTHS - PE 80 BLUE CO-EX SKIN | Maximum : Pressure Rating PN 12.5 (12.5 bar)



PRODUCT CODE	DIAMETER	LENGTH (M)
1200.20.5	20	5
1200.25.5	25	5
1200.32.5	32	5
1200.40.5	40	5
1200.50.5	50	5
1200.63.5	63	5

"Royal Blue" Polyethylene pressure pipe

LENGTHS AND COILS PE 100 - ROYAL BLUE



PRODUCT CODE	DIAMETER	PRESSURE RATING PN (BAR)	LENGTH (M)
1210.63.12.100	63	12	100
1210.63.16.100	63	16	100

Manufacturer

Marley New Zealand Limited

- › 32 Mahia Rd, Manurewa,
Auckland – New Zealand
- › 0800 627539
- › www.marley.co.nz
- › info@marley.co.nz
- › NZBN: 9429038863431

Relevant Building Code Clauses

Marley Blue and Royal Blue pressure pipes when designed, used, installed, and maintained in accordance with the requirements outlined in this document, will meet or contribute to meeting:

- › NZBC Clause B2: Durability. Depending on the scenario, no less than 15 years or 50 years.
- › NZBC Clause F2: Hazardous Building Materials. Meets this requirement and will not present a health hazard to people.
- › NZBC Clause G12: Water Supplies. Meets the requirements for G12.3.1 and G12.3.7.

Quality Assurance

Product batch release testing is conducted by Quality Control systems according to manufacturing standards at the site of manufacture. All product compliance validation is conducted at the Marley IANZ Registered Laboratory (IANZ 92).

Pressure pipes and fittings are manufactured in accordance with AS/NZS 4130: 2018 – Polyethylene pipes for pressure applications.

Pipes that comply with AS/NZS Standard, hold a Bureau Veritas license number to demonstrate compliance.

Limitations on the use

When using Blue and/or Royal Blue PE pipes it should be considered:

- › Mechanical properties of polyethylene pipes are referenced at 20°C. Thermoplastics generally decrease in strength and increase in ductility as the temperature rises and design stresses must be adjusted accordingly
- › Pipes will expand or contract if it is installed during very hot or very cold weather, so it is recommended that the final pipe connections be made when the temperature of the pipe is stabilised at a temperature close to that of the backfilled trench
- › Pipes should be protected against radiant heat that could raise its surface temperature above 60°C
- › Any surface degradation has a significant impact with fusion jointing techniques
- › Direct connection to sources of high frequency vibration should be avoided

Design

- › Pipes are non-conductive and cannot be used for electrical earthing purposes or dissipating static electricity charges. When pipes are used to replace existing metal water pipes, the designer must consider any existing systems used for earthing
- › PE pipe systems will support combustion and as such are not suitable for use in fire rated zones in buildings without protection
- › The Standards mentioned below should be considered at the design stage:
 - › AS/NZS 4130 - Polyethylene (PE) Pipes for Pressure Applications
 - › AS/NZS 4129 - Polyethylene (PE) Fittings for Pressure Applications
 - › AS/NZS 2566.1 - Buried Flexible Pipe: Structural Design
 - › AS/NZS 2566.2 - Buried Flexible Pipe: Installation
 - › NZS 4404 - Design for Urban Subdivision
- › For more information refer to [Marley Polyethylene Manual](#)

Installation

- › Blue or Royal Blue are basically intended for use in buried conditions unless protected from prolonged sunlight exposure. Protection against UV exposure should be provided when used in above ground situations or when stored outside for periods greater than one year
- › PE pipes are normally joined using mechanical fittings or fusion jointing
- › Gradual changes in direction of PE pipelines can be accommodated by pipe deflection (within the maximum bending radius)
- › During the pipe laying of continuous mechanical/fusion joint systems, allowance should be made for the movement likely to occur due to the thermal expansion/contraction of the material
- › For summertime installations, with two fixed connection points, a slightly longer length of polyethylene may be required to compensate for contraction of the pipe in the cooler trench bottom
- › During a winter installation, the exact length of pipe should be used. Pipe which is too short or not aligned must not be drawn up by the bolts of a flanged connection because of potential overstressing of the stub end, flanged adaptor and ultimately the valve or fixture to which it is connected
- › The bending of PE is permissible and the properties of mechanical/fusion jointed systems enable changes of direction without recourse to the provision of special bends or anchor blocks. However, the pipe should not normally be cold bent to a radius smaller than 20 times the diameter
- › After completion of an installation, pipework and fittings should be inspected and made ready for testing to ensure the safety and efficiency of the system

For more information refer to [Marley Polyethylene Manual](#).

Maintenance

“Blue” and “Royal Blue” do not require maintenance in normal service.

Where accessible, fixings should be inspected periodically to check the system continues to be secure.

Warning and/or Bans

“Blue” and “Royal Blue” pipes are not subject to any warning or ban.