

dBLUE ACOUSTIC PLUMBING SYSTEM

Sanitary and Drainage



COMPACT LIVING

Current urban living requires more people to live in close proximity. Councils and town planners promote the intensification of apartment-style living to allow for a rapidly growing population.

Communal living increases the need to reduce noise in these intimate environments, to provide comfort and wellbeing for occupants.

To assist with this noise-reduction initiative, Marley offers the dBlue acoustic plumbing system suitable for sanitary and drainage applications. This noise-reducing system has been specified and installed in commercial buildings, hospitals, apartments, homes and other multi-occupancy urban developments throughout New Zealand. The dBlue acoustic pipe system reduces water-flow noise, creating a quieter living environment. This multi-layered high performance plumbing system delivers the best kind of silent treatment.



dBLUE BENEFITS

The Marley dBlue acoustic plumbing system provides a range of benefits to suit your plumbing and installation needs.

Noise reduction



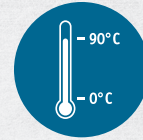
This BRANZ-appraised system has been shown to reduce the noise generated by waste water flowing through a plumbing system.

No lagging required



dBlue doesn't require lagging which saves on installation time and allows for easy inspection.

Temperature resistant



Resistant up to 90 degrees and can be installed at temperatures down to -10 degrees.

100% Recyclable



This sustainable system is 100% recyclable and adheres to the environmental standard ISO4001.

High chemical resistance



Ranging from acids (pH2) to alkalis (pH12).

dBlue has Certification to Australian and New Zealand Standards

dBlue is designed in accordance with the installation standard AS/NZS3500.2. The system complies with AS/NZS 7671 and has Watermark certification. The dBlue system has been developed under a ISO 9001 Quality management system and ISO 14001 Environmental management system.

- **AS/NZS 7671:2010** – Plastic piping systems for soil and waste discharge (low and high temperature) inside buildings – Polypropylene(PP)
- **Watermark - WMK25729**
- **AS/NZS 5065:2005** – Polyethylene and polypropylene pipes and fittings for drainage and sewerage applications
- **Branz appraisal - No 610**



BRANZ Appraised
Appraisal No.610 [2008]

Amended 2013



ACOUSTIC ATTRIBUTES

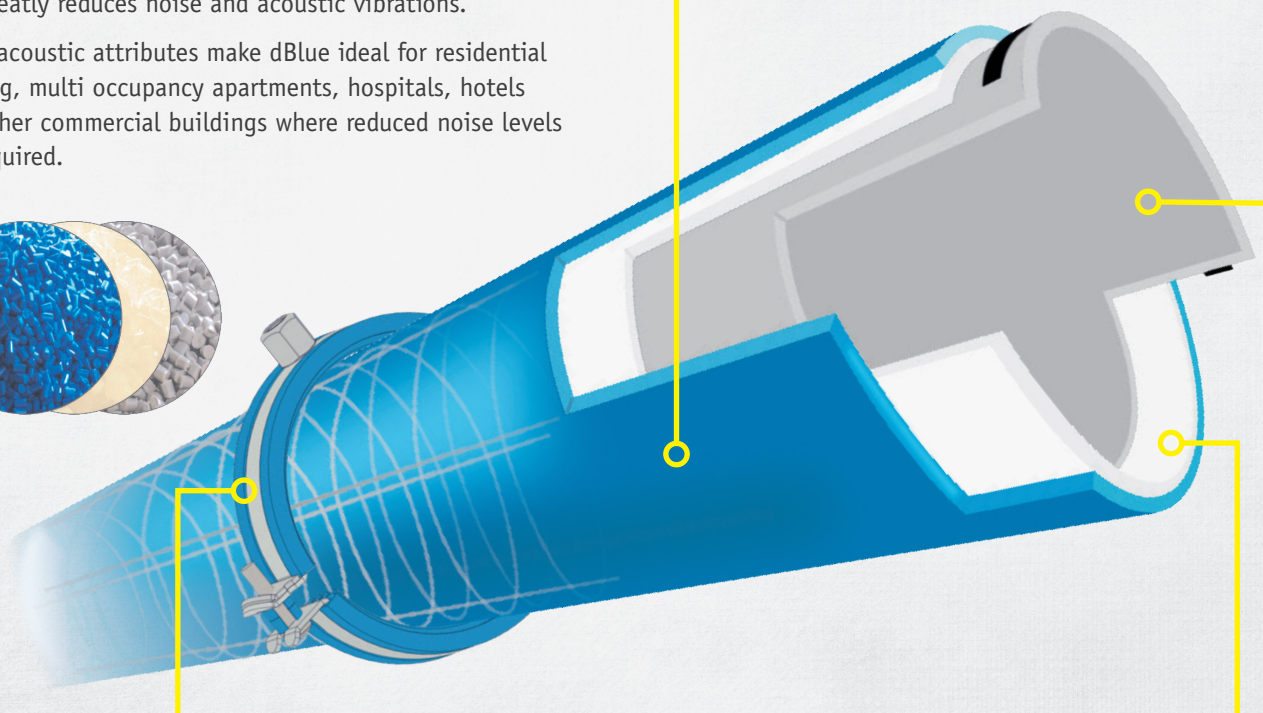
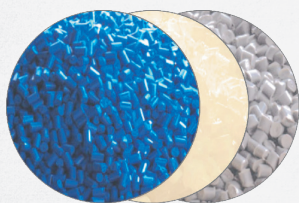
The Marley dBlue acoustic plumbing system is engineered from a state-of-the-art combination of plastic and sound absorbing mineral filler (PP-MD). The dBlue system is designed to minimise the transfer of sound within sanitary and drainage plumbing applications.

The material formula is developed by the Aliaxis R&D laboratory and offers a unique combination of acoustic performance, weight, chemical and temperature resistance with mechanical strength.

The triple-layer pipe structure is produced using the latest co-extrusion technology. Each layer has its own function which is optimised to reduce sound levels, increase mechanical characteristics and improve the drainage flow.

Used in conjunction with the dBlue acoustic rubber lined brackets, the system effectively uncouples the vibrations and greatly reduces noise and acoustic vibrations.

These acoustic attributes make dBlue ideal for residential housing, multi occupancy apartments, hospitals, hotels and other commercial buildings where reduced noise levels are required.



INTERNAL LAYER - GREY

- High temperature resistance 90° (peak 95°)
- Chemical resistance
- Smooth surface

OUTER LAYER - BLUE

- Resistance to external tensions
- Installation down to -10°C

RUBBER LINED ACOUSTIC BRACKET

- Reduces acoustic vibration in the system
- Acoustic dampening rubber lining
- Strong metal bracket to handle weight loads
- Spacers included to allow for guide brackets

INTERMEDIATE LAYER - WHITE

- Reinforced by minerals
- Noise reduction
- High stiffness

ACOUSTIC PERFORMANCE

Noise in a sanitary and drainage system is caused by waste water flowing inside a plumbing pipe system.

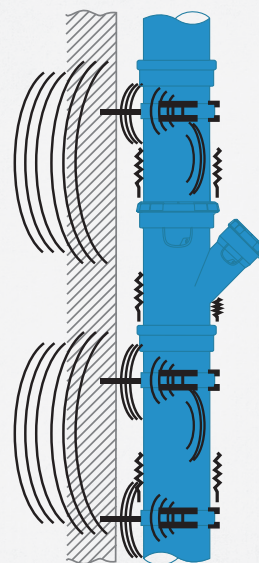
The waste water is turbulent and causes noise as well as vibrations in the pipe structure. The vibrations are emitted directly from the pipe surface as air-borne noise and as structure-borne noise to the wall through the fixing system. dBlue has been designed to reduce both air-borne noise and structure-borne noise.

How dBlue reduces air-borne noise

Air-borne noise is reduced using absorbent materials. The plastic PP-MD used for dBlue is a special formula adding sound-dampening mineral fillers with increased weight to maximise the absorbance of air-borne noise sound waves.

How dBlue reduces structure-borne noise

Structure-borne noise is reduced by using soft material to acoustically uncouple the vibrating source or impact event. The dBlue acoustic bracket has a special rubber lining designed to best uncouple any vibrations from the pipe system.



Air-borne noise reduction

- PP-MD material
- Triple layer pipe

Acoustic vibration reduction

- Tight rubber ring connection between pipe and fitting

Structure-borne noise reduction

- dBlue® acoustic bracket with rubber lining
- Pipe and fittings from PP-MD

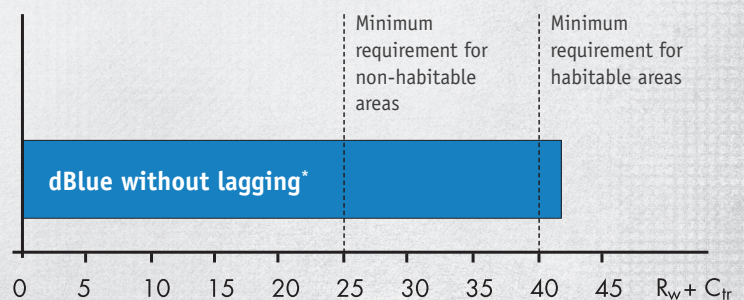
The dBlue plumbing system has been tested as an international solution.

Australia and New Zealand share many plumbing standards. To offer the best proof of performance for a regional solution dBlue has been tested to Australian requirements for acoustic plumbing noise. These requirements include testing to established standards AS/NZS ISO 717.1:2004 and AS/NZS ISO 140.7:2006.

dBlue has been independently tested by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and meets the required $R_w + C_{tr}$ 25 and 40 benchmarks without the need for lagging.



CSIRO is Australia's national science agency, and is one of the largest and most diverse scientific institutions in the world with more than 50 sites throughout Australia and overseas.



* $R_w + C_{tr}$ 40 results are extrapolated based on the $R_w + C_{tr}$ 25 results.

THE RANGE



The dBblue acoustic plumbing system includes a full range of pipes, brackets and fittings allowing for optimal sound dampening in sanitary or drainage applications within New Zealand buildings.

Pipes

50, 75, 110 and 160mm
1 and 3 metre lengths



Socket cap

50, 75, 110 to 160mm



Bends

50, 75, 110 to 160mm
15 to 88 degrees



Floor waste gully

110/50/50/50/75mm



Reducers

50, 75, 110 to 160mm



PP/uPVC transition adaptors

PP 50mm to uPVC 40mm
PP 50mm to uPVC 50mm
PP 75mm to uPVC 65mm



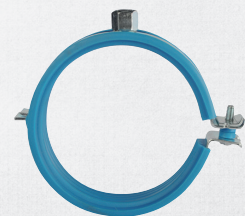
Couplers

Slip and Stop couplers
available 50, 75, 110
to 160mm



Acoustic brackets

50, 75, 110 to 160mm



Junctions

45 "Y" and 88 "T" Junctions
50, 75, 110 to 160mm



Visit our website for a full list of the range available marley.co.nz

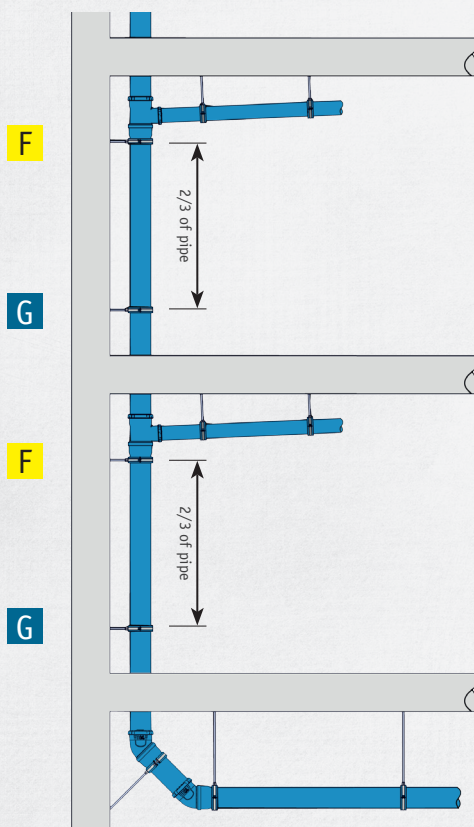
SYSTEM OVERVIEW

The dBlue system includes design, installation and technical instructions on how to install rubber ring components using proprietary dBlue lubrication.

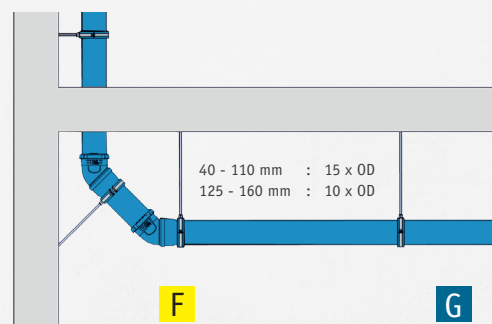
The dblue system has specific horizontal and vertical bracketing plans including required anchor and guide points.



Bracketing plan – vertical stack



Bracketing plan – horizontal stack

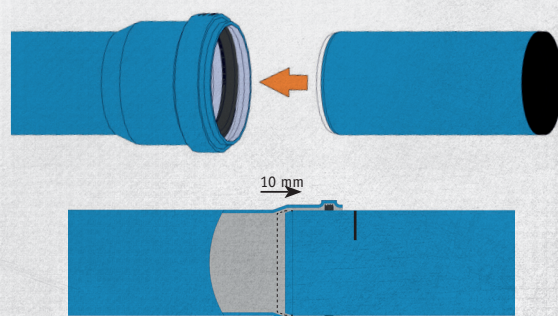


- F** Anchor point bracket (closed without spacers)
- G** Guide bracket (open with 2 spacers)

One fitting per floor level

- Fixed point bracket directly below each socket
- Guide bracket at 2/3 of the pipe length

Rubber ring jointing system



For full design details and technical requirements refer to the dBlue Specifications Manual available at marley.co.nz.



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FOR A BETTER TOMORROW

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AUCKLAND - Mahia Road, Manurewa,
Private Bag 802, Manurewa.

Sales Department Tel: 09 279 2777

Direct Fax: 09 279 2778

Freefax: 0800 652 621

Head Office Tel: 09 279 2799

Fax: 09 279 2798

CONTACT CENTRE: 0800 627 539

CHRISTCHURCH

Shands Road, Hornby,

PO Box 16233 Christchurch.

CONTACT CENTRE: 0800 627 539

For more information: **FREEPHONE 0800 MARLEY (0800 627 539)**

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