



Welcome to The Green Pipe (TGP), your go-to choice for eco-friendly drainage solutions in Australia.

TGP is proud to be an Australian-owned business dedicated to producing top-quality pipes for the civil, agricultural, and forestry industries. What sets us apart? We manufacture our pipes using 100% recycled plastic, primarily sourced from household milk and juice bottles.





When it comes to drainage solutions, The Green Pipe stands out as a leader in sustainability, quality, and cost-effectiveness. Choose TGP for your next project and join us in making a positive impact on the environment. Together, we can build a greener future.

Key Features

Environmentally Friendly

- TGP pipes are made from 100% recycled plastic, with a minimum of 95% sourced from food-grade containers, predominantly household milk and orange juice bottles.
- Our commitment to sustainability extends beyond recycling; we ensure that our manufacturing process has a minimal environmental impact.
- TGP doesn't use toxic materials ("Drum Muster" products) in its manufacturing process.

Product Specifications

- TGP pipes come in standard 6-meter lengths, making them easy to handle and transport.
- We offer a range of diameters to suit your needs: 250mm, 300mm, 375mm, 450mm, 525mm, and 600mm.
- TGP uses a standard bell & spigot "O" ring joining system, simplifying installation.

Durability

- Even in highly acidic soils, TGP pipes remain unaffected and have a virtually indefinite lifespan.
- These pipes can be easily cut and fabricated on-site using tools like chainsaws, circular saws, or angle grinders, allowing for custom fittings at competitive prices.

Energy Efficiency

- TGP is proud to have a significantly lower embodied energy compared to competitors.
- Our embodied energy is calculated at just 7.91 Mj/kg, encompassing the entire raw material collection and manufacturing process.
- Additionally, our pipes can be nested during transportation, further reducing their carbon footprint.

Product/material	(MJ/kg)	MJ/mtr – 375mm diameter
Cement	7.8	928 (Approx)
The Green Pipe	7.9	151
Steel	32	
Polypropylene	64	
PVC	70	
HDPE & LDPE (virgin polyethylene)	103	

Sustainability in Action

Since our inception in 1999, TGP has played a pivotal role in recycling. We've proudly converted over 100 billion 2 liter milk bottles into valuable drainage solutions, contributing to a cleaner environment and a



Green Pipe Specifications

	250mm	300mm	375mm	450mm	525mm	600mm
Bell Mouth Pipes	SN 10	SN 10	SN 10	SN 10	SN 10	SN 10
Weight	50kg	60kg	115kg	135kg	225kg	250kg
Int Dia Spigot	240mm	290mm	345mm	425mm	510mm	580mm
Ext Dia Spigot	264mm	320mm	387mm	465mm	550mm	635mm
Int Dia Bell Mouth	290mm	335mm	395mm	470mm	565mm	645mm
Ext Dia Bell Mouth	325mm	370mm	435mm	535mm	605mm	690mm
Socket Length	410mm	410mm	250mm	250mm	180mm	175mm
Shell Thickness	12.5mm	15mm	21.5mm	20mm	20mm	27.5mm
Flange Pipes						
Weight	50kg	60kg	115kg	135kg	225kg	250kg
Int Dia Flange End	240mm	290mm	345mm	N/A	N/A	N/A
Ext Dia Flange	325mm	370mm	440mm	N/A	N/A	N/A
Flange Thickness	25mm	25mm	25mm	N/A	N/A	N/A
Shell Thickness	12.5mm	15mm	21.5mm	N/A	N/A	N/A
Miscellaneous						
O Ring Rubber Dia	13mm	13mm	13mm	13mm	15.9mm	15.9mm
Flap and Chain Dia	250mm	250mm	125mm	110mm	110mm	110mm
Pipe Overlap w/o O Ring	250mm	250mm	125mm	110mm	110mm	110mm
Pipe Overlap with O Ring	200mm	200mm	125mm	110mm	110mm	110mm
O Ring Position	30mm	30mm	30mm	30mm	30mm	30mm
** All dimensions may vary within a range of + or - 2%						



Green Pipes leads the way regarding engineering excellence, performance, and sustainability. Our innovative design, rigorous testing, and commitment to environmentally friendly transportation make us the preferred choice for a greener future. Choose TGP for your drainage solutions and experience the difference in quality, efficiency, and environmental responsibility.

Pipe Specifications

- TGP pipes are available in standard 6-meter lengths, offering installation flexibility.
- We provide a variety of diameters, defined by nominal inner diameter (i/d), including 250mm, 300mm, 375mm, 450mm, 525mm, and 600mm.
- Designed to meet the SN 10 rating as per AS/NZS 1462.22:1997, our Green Pipes are suitable for carrying maximum legal axle loads when installed according to AS/NZS 2566.2:2002.

Rigorous Testing

- Initially, TGP underwent testing by CSIRO to verify its stiffness ratings.
- Following a process improvement in late 2004, Swinburne University of Technology conducted comprehensive tests to ensure top-tier quality, including doubling the tensile strength and re-qualifying stiffness properties.
- These tests determined the Initial Ring Bending Modulus and Long-term Ring Bending Modulus, aligning with AS/NZS standards for accuracy and reliability.
- Further product upgrades in 2022 have resulted in a stronger, higher crush-strength, pipe which meets and exceeds the current civil SN rating requirements for plastic pipes.

Superior Performance

- TGP pipes are designed with a socket for easy connection, incorporating a rubber “O” ring that



Life Underground

Long-lasting Durability

One of the critical advantages of The Green Pipe is its exceptional durability, especially when it comes to life underground. High-density polyethylene (HDPE), the material used to craft our pipes, boasts remarkable resilience to environmental conditions. HDPE does not polymerise or chemically break down when buried underground. As a result, the only factor affecting product longevity is physical stress.

Proven Performance

The longevity of The Green Pipe is not a matter of speculation, backed by rigorous testing and concrete evidence. According to the Executive Summary and associated results of the Swinburne University of Technology Report, our Long-term Ring Bending Modulus demonstrates that The Green Pipe's 50-year life performance is equivalent to PE80B, a product renowned for its exceptional underground durability.

Beyond 50 Years

While it is impossible to predict the exact lifespan of either product under similar conditions, one thing is clear: you can expect The Green Pipe and PE80B to exceed 100 years of service life. This assurance underscores our commitment to providing drainage solutions that meet your immediate needs and stand the test of time.





To ensure the optimal performance of your Green Pipe, please follow the installation procedures outlined below. Failure to do so may void any written or implied warranties for The Green Pipe.

Installation Guide

MINIMUM REQUIREMENT FOR PRIVATE PROPERTY INSTALLATION

For use under Government roads please refer to AS/NZS 2566.2

Proper installation is crucial to ensure the long-term performance of The Green Pipe. Follow these guidelines for a successful installation:

Site Preparation

Trench Excavation

- Excavate trenches as narrow as practical to facilitate efficient installation.
- Remove rocks, tree roots, and other hard objects from the trench.
- When installing under an embankment, apply the same precautions mentioned above whenever possible.

Trench Depth

Minimum cover depths depend on the intended load-bearing capacity of the pipes. The following depths refer to legal axle loads per State or Federal road authorities.

Green Pipe Diameter	Cover over Crown (Min)	Recommended Trench Width
250 mm (10")	300 mm	500 mm
300 mm (12")	350 mm	500 mm
375 mm (15")	450 mm	700 mm
450 mm (18")	600 mm	700 mm
525 mm (21")	700 mm	800 mm
600 mm (24")	800 mm	900 mm

Bedding Material

- Add bedding material to the bottom of the trench to ensure uniform support along the entire pipe length.
- Dig holes under the bell-mouth ends or joints to provide even support.
- Lay continuous bedding material, 75mm thick, using materials that meet one of the following criteria:
 - a) Gravel or crushed rock of suitable grading (no larger than 15 mm).
 - b) Sand on a 13 mm sieve containing no rocks, hard, or sharp objects.
 - c) The excavated material is suitable if it meets criteria (a) and/or (b) and is free of rocks.



Side Support

- Achieving correct compaction for side support materials is critical.
- Recommended compaction is to 95% dry density.
- Build up side compaction evenly to avoid disturbing pipe alignment.
- Materials used for side support should comply with the requirements for Bedding Material
- Tamp side support material in layers (75mm to 150mm, depending on pipe size) to an even surface finish.
- Continue side support material compaction over the height of the pipe to a minimum of 200mm. This overlay protects the pipe during the final backfill.
- In embankment installations, bring side fills up evenly on both sides and continue to surround the pipe by 300mm or twice the pipe's diameter, whichever is greater.

Backfill

- Fill the remainder of the trench or embankment with excavated materials, ensuring even compaction in 200mm increments.
- Do not use backfill for dumping rubbish or unwanted materials, as it may lead to pipe invasion or breakage if it contains rocks or sharp objects.

Pipe Deflection

- Check pipe deflection upon completion of installation. Any noticeable deflection (over 5%) requires a review of compaction, bedding materials, and installation techniques.

Additional Notes

- Proper installation procedures, bedding, side support, overlay, and backfill materials are essential for a successful installation and the long-term performance of your pipe.
- Failure to follow correct installation procedures, as included in this brochure, will void any written or implied Green Pipe warranties.
- Exercise particular care in unstable soils or high levels of groundwater trench contamination.

Contact Us

For further information or inquiries, please contact TGP:

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TECHNICAL REPORT ON THE STIFFNESS MEASUREMENT OF PIPE SAMPLES

The Green Pipe

32 Dawson Street, Moama, NSW 2731

ExcelPlas Job # 12307

P.O. Box 147, Moorabbin, VIC 3189

www.excelplas.com

30th August 2022

COMMERCIAL-IN-CONFIDENCE

1. Objective

The objective of this study is to measure the stiffness of pipe samples.

2. Samples Supplied

Four samples of pipe were supplied by Circle P Pty Ltd T/A The Green Pipe.

The identification of the samples was:

Sample ID:	Description:
12307-1	DN375 Pipe
12307-2	DN435 Pipe
12307-3	DN525 Pipe
12307-4	DN600 Pipe



Figure 1. Samples as received by ExcelPlas.

Table 1. Summary of all pipe sample testing results.

Sample	Mean Pipe Stiffness (S) (N/m/m)	Nominal Stiffness Rating (SN)
12307-1	13991	SN10
12307-2	11712	SN10
12307-3	11248	SN10
12307-4	10565	SN10

*The Nominal Stiffness Rating (SN) is taken from the ratings given in Table 3.1 of AS/NZS 5065 – Polyethylene and Polypropylene Pipes and Fittings for Drainage and Sewerage Applications.

The Green Pipe

100% RECYCLED PLASTIC

UNDERGROUND SINCE 1999







Contact Us

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