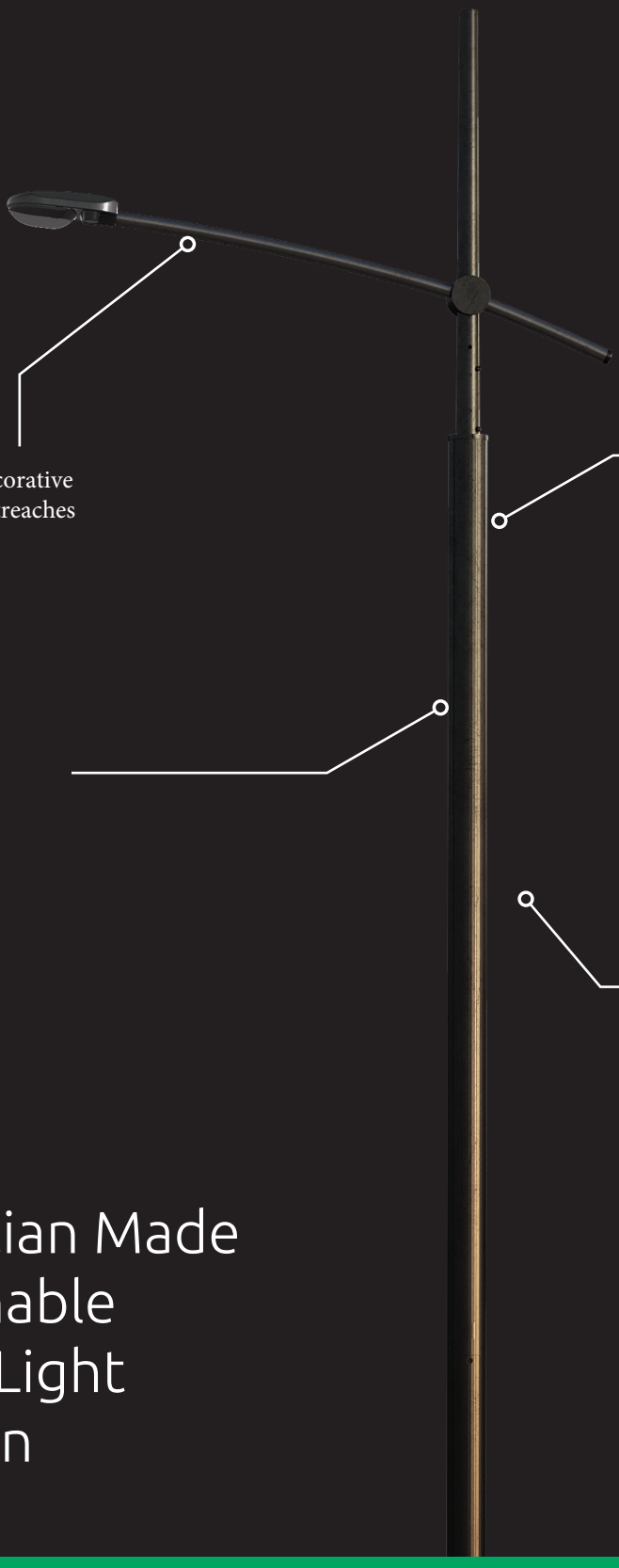
PLASGAIN

INTRODUCING

PLASPOLE™



Australian Made
Sustainable
Street Light
Solution

plasgain.com.au

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Why Choose Plaspole™

- Australian Made
- Environmentally Sustainable
- Structurally Tested to Australian Standards
- Compatible with any Decorative Styled Luminaire
- Ease of Installation
- Durable Construction
- Custom Painted to blend in existing landscape
- Aesthetically appealing

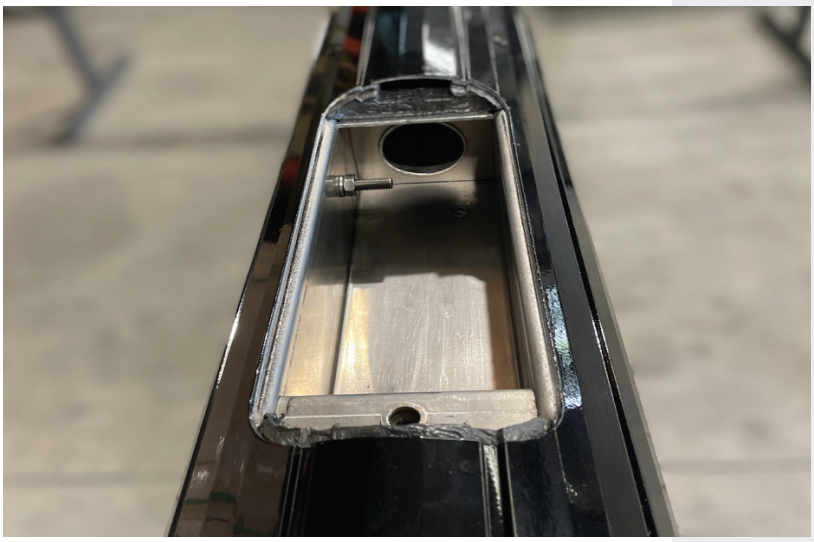
INTRODUCTION

Welcome to Plaspole™ - the innovative and sustainable solution for lighting poles in Australia.

Our product represents a technical leap forward in manufacturing and sustainability, with a commitment to excellence that goes far beyond the function of a mere light pole. We are proud to offer a product that not only serves its intended purpose for over 50 years but also supports the wider community by returning manufacturing to Australia and using recycled materials. We believe in minimising our environmental footprint by incorporating waste materials that would otherwise end up in landfills. We are committed to making a positive difference to our planet.

To give you a detailed understanding of Plaspole™, we have provided product images and descriptions. We have conducted independent structural testing in line with both VESI and Australian Standards. Engineering computations have also been performed by a structural engineering organisation with extensive experience in lighting standards. We have included engineering drawings that illustrate the specifics of each component, including cross-sections and elevations.

To ensure that all documentation is accurate and up to standard, we have engaged an engineering firm to summarise the key points and independently verify that the testing performed complies with both VESI and Australian Standards.



WHAT IS PLASPOLE™?

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For years, traditional light poles in Australia have been manufactured from virgin steel in China, causing significant greenhouse gas emissions due to mining, beneficiation and transportation. However, Plaspole™ offers a sustainable and cost-effective alternative.

Plaspole's™ outer skin is made of a thin aluminium layer, which is UV and weather-resistant and can be painted to match the surrounding environment. The inner core of the pole is where the real magic happens - recycled plastic, collected from Victorian kerb-side post-consumer collection, is inserted into the core in a molten state and under pressure. As the plastic cools, it bonds with the aluminium skin, enhancing the pole's structural integrity.

The recycled polymeric material used in Plaspole™ comes from post-consumer waste, such as milk bottles and yoghurt containers, and provides a longer useful life to these items. The innovative manufacturing process of Plaspole™ reduces the amount of waste sent to landfills and the amount of virgin materials required.

To ensure ease of connectivity, a thin steel tube is incorporated through the centre of the polymeric core, allowing cables to pass through. The composite material used in Plaspole™ results in a high-strength pole that can withstand wind loading and service deflection limits while maintaining the aesthetic appeal of traditional light poles.

Plaspole™ is not only environmentally-friendly, but it is also cost-effective and manufactured in Australia. It offers a sustainable and eco-friendly manufacturing process that reduces greenhouse gas emissions, creating a positive impact on the environment. Moreover, the production of Plaspole™ supports the Australian manufacturing industry and helps to reduce reliance on imported products.

At Plasgain, we have extensive experience in supplying traditional light poles, and we have customised Plaspole™ with the following features to ensure successful installation:

- **The in-ground base is designed as Hot Dipped Galvanized in compliance to VESI & Australian standards to accommodate 5mm wall thickness.**
- **The Galvanized base at ground level prevents damage from line trimmers.**

Figure 3: showcases the engineered cable entry location of Plaspole™, ensuring a smooth and effortless pathway for cables to pass through the recycled plastic material to reach the top of the pole. The moulded plastic is not only durable and smooth but also acts as a natural insulator.

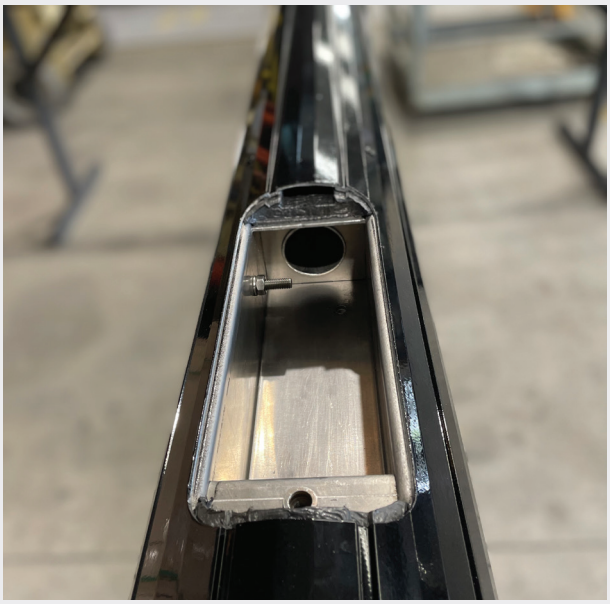


Figure 2: Access door location. Note a door will affix to the opening as per traditional light poles.

- **The cable entry location is engineered to create a seamless path for cables to pass through. During the manufacturing process, a mould is inserted to create a void within the recy-cled plastic. This section is buried underground and provides a durable, smooth and natural insulator for the cables.**

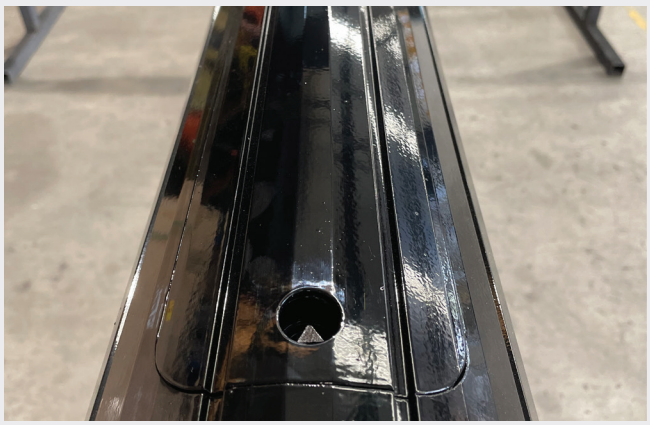
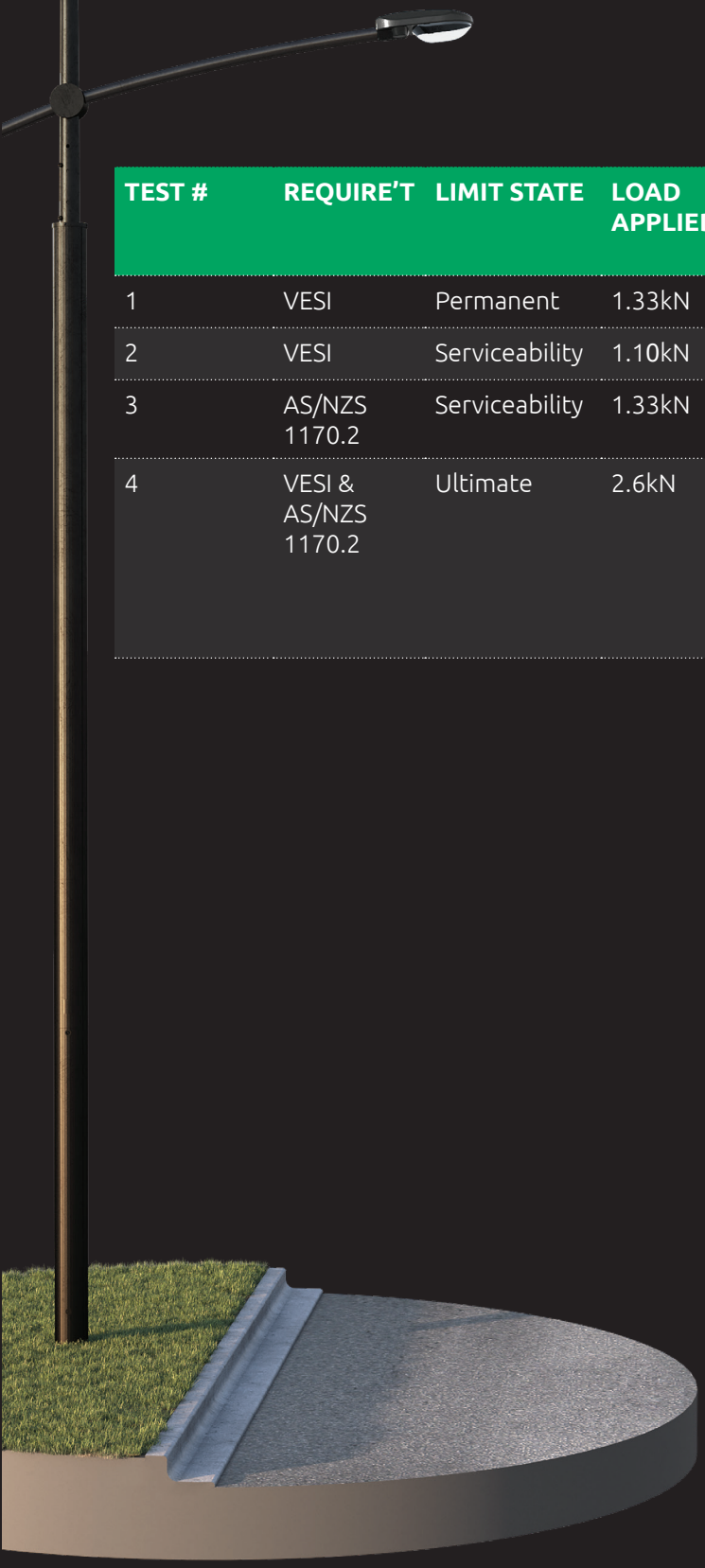


Figure 4: Seamless door covering internal components sits flush with pole and unnoticeable from a distance.

TESTING OF PLASPOLE™

Plaspole™ has been tested to Australian Standards for wind loading (AS/NZS1170) and the VESI regulations for street lighting poles, which have been modified with increase Factors of Safety to account for the unique composite structure of Plaspole™. The summarised testing results are:



TEST #	REQUIRE'T	LIMIT STATE	LOAD APPLIED	FACTOR OF SAFETY	TEST RESULT (RANGE FOR 4 TESTS)	TEST LIMIT	RESULT
1	VESI	Permanent	1.33kN	10%	1 - 4mm	10mm	PASS
2	VESI	Serviceability	1.10kN	10%	116 - 155mm	220mm	PASS
3	AS/NZS 1170.2	Serviceability	1.33kN	10%	134 – 168mm	270mm	PASS
4	VESI & AS/NZS 1170.2	Ultimate	2.6kN	30%	All tested poles maintained the applied load for 5 minutes with-out a reduction in strength	Must be able to sustain the test load for 5 minutes	PASS

Disclaimer: the information contained in this brochure is general in nature. In particular the content of this brochure does not take into account specific conditions that may be present at your site. Site conditions may alter the performance and longevity of the product and in extreme cases may make the product wholly unsuitable. Actual dimensions and performance may vary. Where provided, installation instructions cover installation of product in site conditions that are conducive to its use and optimum performance. If you have any doubts about as to the installation instructions or their application to your site, be sure to contact us prior to installation. This brochure should not be used for construction purposes and in all cases we recommend that advice be obtained from a suitably qualified consulting engineer before proceeding with installation.

2/68 Weerong Rd,
Drouin VIC 3818

1300 099 330
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