

MOISTURE BARRIER

For Terra Series In-Ground Luminaires
GL10, GL20, GL30



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DIGILIN

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Peace of mind for your outdoor lighting fixtures

The Digilin difference is very apparent in the build quality and performance of the Terra series In-Ground luminaires. The reason these devices are selected for critical landscaping applications is not just how they look and perform. What's inside is a sophisticated design to ensure these fixtures continue to perform regardless of the conditions.

The ability of the Terra series to prevent moisture ingress is a combination of its superior design, component selection, construction process and the Digilin moisture barrier system.



Frames & Coatings

The GL series bodies are a diecast aluminium frame designed for structural integrity and thermal management.

Each GL fixture frame undergoes a substantial protection treatment where it receives a multiple layer coating process that prevents any exposure to moisture, providing a moisture barrier to the internal components.

Cable

All GL series fixtures are fitted with thermoplastic vulcanizate cables which are of the highest specification and protect the inner cable cores against the elements. The properties of these cables include

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| Operating Temperature -50- + 135°C | Excellent ozone resistance |
| Excellent UV resistance | Chemical resistance to aggressive mediums |
| Exceptional adhesion to a broad range of polar and non-polar substrates | |
| Very good resistance to fatigue | Remarkable tear strength |
| Very low compression set | Exceptional elasticity |



Moisture Barrier System

While there exists a possibility that cable connections may occur in weathered zones, we must accept that these connections may not always be performed in such a way that keeps the connection dry. To combat this Digilin has developed the Moisture Barrier System

The TPV cable enters the fixture via a cable gland, cables are then soldered onto a ceramic feedthrough which provides adequate surface for potting to bond to, thus blocking moisture travelling on the outside of the cables. The result of this process is no inner pathway (such as a multi stranded wire) or outer pathway (such as cable insulation) for moisture to travel.

Ceramic feedthroughs are then connected to the barrier board which is a PCB and a physical barrier to moisture. Any penetrations in this board have components installed and are soldered shut. The open space between where the ceramic feedthroughs enter this board to where the wires that actually go into the fitting are connected to the board. Everything from the cable gland to the barrier board is potted using a thermally stable compound preventing any moisture from entering this area.

As an additional measure, the internal driver PCB is conformal coated. This coating protects the PCB from any moisture that may have been present within the housing during construction or any vapour that may have made its way into the fixture if installed on a humid day. While these scenarios are very unlikely, this extra level of protection ensures that driver board electronics are always protected.

The GL series all have a glass seal and ring system that prevents moisture entering through the top of the fixture. If this is sealed onsite by an installer, they must follow the instructions provided with the fixture to ensure that moisture cannot enter the fixture.