



Iternz MONO IIPM: A recessed solar-powered internally illuminated pavement

A solar powered, internally illuminated bi-directional, recessed road marker that delineates lane lines more clearly at night. Lights can be configured in any combination of white and yellow.

IIPMs can delineate lane layouts ten times further ahead than retro-reflective markers

Drivers make mistakes; however, mistakes should not result in serious injury or worse. Iternz technology gives more information on road layout in poor light or at night, helping drivers to make safer decision on wet or unfamiliar roads.

Six advantages of Iternz IIPMs

Up to ten times the visibility of reflective markers on road layout and lane demarcation at night.

Single marker can be configured white & yellow in different directions.

Product lifetime is expected to exceed the lifetime of the road surface.

Recessed road markers cannot be torn from the road creating a hazard, will not fade with age, and can be snow-ploughed.

Over the lifetime of the IIPM, multiple reflective units would need to be replaced, with attendant road closure costs, so there is an overall cost saving in IIPM to road operators.

No wires or induction cables: simple and cost-effective to install.

Illustrative graphic reflective pavement marker



Illustrative graphic Internally illuminated marker



Use and placement of Iternz MONO – A better alternative to retro-reflective markers

The Iternz IIPM illuminated marker is recommended to replace retro-reflective cat's-eyes on the centre lane along a highway. On tight corners, or winding roads, it is recommended that IIPMs are spaced more closely, to the aid the driver to better perceive the road layout ahead. Iternz IIPMs are mounted flush to the pavement and do not provide tactile feedback to drivers.

Installation on New Zealand roads requires permission of Road Controlling Authorities with appropriate traffic management practices. Installation guidance is available to RCAs

Technical Specifications

Construction: Grey aluminium with clear polycarbonate lens.

Dimensions: 125mm \varnothing , depth 50mm, weight 0.9kg, with 8-anchoring fins, 4.0 mm surface protuberance.

Surface features: anti-skid, scratch resistant, self-cleaning surface.

Light configuration: Constant 90lm white or constant 38lm yellow.

Beam Angle: 119.3° at 50% I_{max}.

Ambient light: Activation at 101lux. Turns off 5 mins after ambient light exceeds threshold.

Solar charge time: 8 hours.

Battery: 1600mah

Discharge time: 96 hours with no recharge – ie: 12 rainy days.

Lifespan: No more than 10% lux degradation after 5 years. Should exceed lifetime of road surface.

Compression: Certified at 70kN.

Ingress Protect: IP68 certified.

Vibration & Bump: PASSED shock testing

Solar Power – Energy efficient, environmentally friendly, easy to install, long life

Iternz solar powered markers operate continually and automatically activate when ambient light drops below, or exceeds, 101 lux, with a 5-minute buffer before turning off. Solar-power markers do not require power cables or induction loops to operate, eliminating considerable cost and road traffic disruption on installation. Iternz markers will suffer less than 10% lux degradation in their first five years.

Alternative uses – More than a road marker

Iternz illuminated markers can be used in settings where street lighting is uneconomic or environmentally insensitive.

Iternz IIPMs can be installed on private footpaths, cycleways, tow paths, in open carparks and walkways to delineate safe passageways.

Iternz markers can be used to delineate driveways, boat ramps, stairs, or used decoratively in building design or art installations.

For safety, it is recommended IIPMs are installed on private roads in keeping with public roadway layouts.

Configuration – Any configuration you like

IIPMs can be configured uni-directional or bi-directional in any colour combination of:

Yellow / blue flash **Yellow / White**

White only **Yellow** only

Green only **Red** only

Iternz hold Type Approval by Waka Kotahi for use on New Zealand public roads.

Solar Power Limitations Waiver:

By accessing this data sheet/website, you acknowledge and understand that solar power systems depend on sufficient daylight for optimal performance. Power output and battery charging may be limited during periods of low or no sunlight. No liability is assumed for reliance solely on solar energy. Our Mono is compliance with Waka Kotahi M29:2021 standards

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Quality Marks – CE, FCC, Rohrs



CE certification

EN IEC 55015: 2019+A11 2020
EN 61547: 2009
EN IEC 61000:3-2:2019
EN61000-3-3:2013+A1:2019



FCC certification

CFR Title 47 Part 15 Subpart B:2017



RoHS (China) certification

Compliance with RoHS directive 2011/65/EU Annex2 amending annex [EU]2015/863 and amending annex [EU]/2017/2102
Lead, Cadmium, Mercury, Hexavalent Chromium, PCBs, PBDEs, DEHP, BBP, DBP & DIBP content

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