



*Delivering concrete solutions
for a sustainable future*

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Livingston Shire Council Future Proofs Pavements with Fibercon™ MPP Poly Fibres

In an Australian first, ongoing remedial works to walkways and bikeways in Yeppoon are a thing of the past for Livingston Shire Council.

Queensland's cyclonic weather patterns and subsequent frequent flooding have caused a particular headache in both costs and labour for councils in maintaining footpaths.

Frequent flooding means salt migrates through porous concrete. The salt then rusts traditional steel reinforcement, causing the steel to expand and crack the concrete—necessitating ongoing repairs.

The initial trial replacement of steel within Yeppoon's footpaths covers 3kms. When completed, 19kms of existing steel reinforced Lammermoor beachfront paths will be replaced with a concrete mix utilising Fibercon MPP Poly Fibres.

The Council has a vision to create a world class destination for Yeppoon — ongoing repair works to pathways are disruptive to this vision.

The innovation shown by the Livingston Shire Council is being watched with interest by neighbouring councils: Replacement of steel reinforcement is not only good for the environment, but good for Councils' budgets.



Fibercon's Emesh recognised in 2017 Excellence in Concrete Awards



Ongoing recognition for Emesh saw Mark Combe accept the Concrete Institute of Australia Queensland Award for Sustainability & Environment—a category developed specifically to recognise advances in the environmentally sustainable use of concrete.



Emesh uses 100% recycled macro poly industrial waste instead of traditional steel reinforcement. Independent auditing by the International Environmental Product Declaration ISO4040, certifies Emesh raw stock is 100% Fully Recycled..

Over the past 12 months, Emesh has been used in over 20,000m² of paths and pavements, reducing the CO₂ footprint by over 200 tons, with significant cost savings in implementation and ongoing durability.

In accepting the award, Mark Combe stated "Overnight success has taken us 20 years to achieve." Visit: www.emesh.com.au

National Judging by Peers

As a result of the Queensland Award, Emesh is now a finalist in the Concrete Institute National awards in October.

In the Category "Excellence Awards—Sustainability and Environment", Emesh will be judged by industry peers to specifically recognise advances in the environmentally sustainable use of concrete.





James Cook University's "The Science Place" Recognised by MBA Queensland

James Cook University's \$80 million "The Science Place", was awarded Project of The Year, by the Master Builders Association Queensland in their 2017 Awards.

Fibercon's Emesh—concrete reinforced recycled plastic—was used in the footpaths leading up to the Science Place and Douglas Campus Buildings.

Interestingly, the technology was originally developed at James Cook University through PhD student Shi Yin's research under the supervision of Dr. Rabin Tuladhar and in collaboration with Fibercon, and won the Manufacturing, Construction and Innovation category at the 2015 Australian Innovation Challenge.

Use of recycled plastic fibres in concrete eliminates the need for steel mesh and saves significant amounts of CO₂ associated with steel production. Comprehensive life cycle assessment shows the production of recycled plastic fibre produces 90% less CO₂ and eutrophication (contamination of water bodies with nutrients) compared to the equivalent steel.

Fibercon's Tony Collister—Project Manager—said "Although they look like any other footpath, this technology may hold the key to one of the construction industry's most pressing environmental problems by reducing CO₂ emissions." Visit: www.emesh.com.au



Did you know?



- Concrete is the second most used material by humankind, second only to water.
- 4 billion tonnes of concrete is used globally, every year.
- Global plastic production every year is more than 300 million tonnes—only 5% is currently being recycled, leading to burgeoning plastic pollution.
- Recycling a part of this plastic waste into fibres provides an opportunity to reduce global plastic pollution.
- Compared with the production of steel, plastic fibres have 90 per cent less carbon footprint due to less energy being required for production.



The Daintree Ferry is the gateway to the Daintree -the world's oldest rainforest—estimated at 180 million years old



Douglas Shire Council selects Emesh for Daintree Ferry Carpark

The Daintree Ferry is the gateway to Cape Tribulation and the Daintree Rainforest—described by David Attenborough as "the most extraordinary place on earth".

Ever increasing popularity saw the Council upgrade carparking, boat ramp access and pedestrian experience inline with a Masterplan to guide development of the precinct into a world class gateway facility.

Ben Armbrust, Works Supervisor with the Douglas Shire Council, said Fibercon's Emesh was selected primarily for its environmental benefits. "Sustainability is a fundamental consideration in the development of the Daintree Gateway", said Ben. "The CO₂ footprint reduction together with the use of 100% recycled poly fibre and decreased ongoing maintenance costs, meant that Emesh was a good fit for our requirements". Visit: www.emesh.com.au