

ECO-RAFT

An Environmentally Friendly Slab Solution



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Introduction to Eco-Raft

Eco-Raft is a residential raft floor system utilising factory-cut recycled pods and Eco-Max concrete, resulting in an embodied carbon saving up to 50% over other raft floor systems.

Our Eco-Raft Slab Solution involves pre-cutting all pods in a controlled environment. All pods are made from 40% recycled material and they are 100% recyclable. This system eliminates waste and avoids cutting on site - an approach that minimises on site waste and the generation of airborne poly beads.

The Eco-Max Concrete will save up to 50% embodied carbon over standard concrete. Eco-Max concrete have other benefits like durability, less shrinkage, superior finish. Not only does Eco-Raft prioritise environmental sustainability, but it also enhances durability and extends the design life of the floor.



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Key Benefits



High Performance

The Eco-Raft slab solution uses Eco-Max concrete. Eco-Max concrete have a list of high performance attributes over standard concrete, and this makes it perfect for architectural and standard floors.



Durability

Eco-Max is a finer material that produces a denser and smoother finish. This results in a more durable surface that also has better stain and chemical resistance.



Reduced Shrinkage

Eco-Max concrete has a lower shrinkage performance, reducing cracking.



Cost Competitive

Eco-Raft is a cost competitive system to a standard raft system, with all the added benefits.



Architectural Finish

Eco-Max creates a smoother/denser surface, as it is a much finer product than standard cement. Eco-Max also provides a much whiter appearance, which is perfect for polished floor finishes.

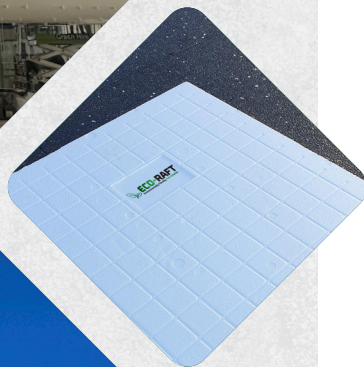


Lower Embodied Carbon

Eco-Raft uses a low carbon Eco-Cem cement. The GP cement (**829kgs** of embodied carbon per tonne of cement) is replaced with Eco-Cem (**164kgs** of embodied carbon per tonne). This is a true replacement of GP cement to a low carbon cement. The carbon saving will be up to 65% of embodied carbon using the Eco-Raft system.



Proven performance worldwide





Embodied Carbon Reduction

We have developed the ratings in the graph below to give you an indication of our Embodied Carbon reductions across various products.

	20 MPa	25 MPa	30 MPa	35 MPa	40 MPa	45 MPa	50 MPa
ISC 2020 Baseline	284	313	347	391	441	495	550
ECO-MAX - 15% Replacement CO₂ Reduction	213 25%	223 29%	246 29%	271 30%	299 32%	337 32%	379 31%
ECO-MAX - 25% Replacement CO₂ Reduction	197 30%	207 34%	229 34%	251 36%	276 37%	311 37%	348 37%
ECO-MAX - 35% Replacement CO₂ Reduction	183 36%	192 39%	211 39%	231 41%	254 42%	285 42%	318 42%
ECO-MAX - 45% Replacement CO₂ Reduction	169 40%	176 44%	194 49%	211 46%	231 48%	258 48%	288 48%
ECO-MAX - 55% Replacement CO₂ Reduction	154 46%	161 49%	176 49%	191 51%	208 53%	232 53%	258 53%
ECO-MAX - 65% Replacement CO₂ Reduction	139 51%	145 54%	159 54%	171 56%	186 58%	206 58%	227 58%

Global Warming Potential (GWP)
(Embodied carbon per m³)

ISC 2020 Baseline is from the Infrastructure Sustainability Council 2020 Baseline.

CO₂ Reduction % is calculated from the ISC 2020 Baseline.

Percentage replacement values have been calculated from our inhouse LCA Mix calculator.

Above values are calculated on 19mm Standard mixes for Taranaki Mix, other regions and mixes will vary slightly.

For technical information please refer to HR Cement Ltd product data sheet for Eco-Cem.

For more information on suitability and achievable CO₂ reductions please contact your local representative.





Get in Touch

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Environmental Product Declaration

An Environmental Product Declaration (EPD) is an independently produced report of the effects across a wide variety of criteria. The EPD for our GP Cement Xtra-cem was produced by Thinkstep, a well known and very reputable NZ based company, and published in February 2022.



Eco-Raft Slab Solution replaces up to 50% of GP cement with recyclable materials, ensuring that Eco-Raft itself is 100% recyclable.

