

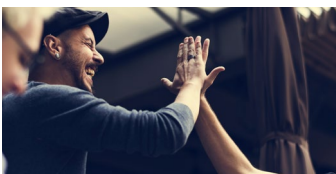
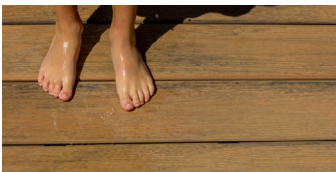
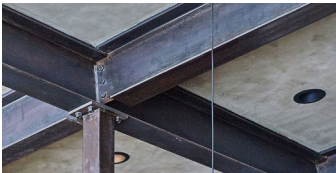
EVA-LAST®

INSPIRED BY NATURE, DESIGNED FOR LIFE.

I-Series™

Stronger, lighter, better composite.

Contents



1. Innovation and evolution

I-Series is the stunning result of composite creativity and cutting-edge engineering.

2. I-Series product architecture

Years of product development and meticulous improvements pay off in the *I-Series* composite range.

3. Product testing and results

I-Series proves its worth through extensive real-life testing.

4. Recap of benefit

I-Series makes choosing, using, handling and distributing composite better.

5. The business case

The environmental advantages of *I-Series* become financial advantages for you.

The background features a dark gray field with several light gray geometric shapes. A large, irregular polygon is positioned in the upper right, and a tall, narrow rectangle stands to its right. In the bottom right corner, there is a small square and a thin vertical rectangle.

Innovation and evolution

The evolution of *I-Series*

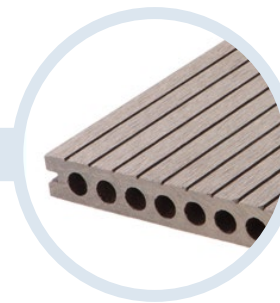
It took innovative thinking, persistence and the belief that even great composite could be made better to develop I-Series. Here is the evolution of the composite revolution Eva-Last® has been leading since 2006.

2006



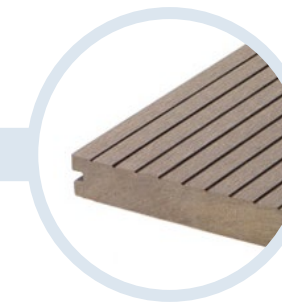
Square hollow profiles hit the market
Eva-Last® begins with cost effective square hollow first generation decking profiles, Eva-tech™ is introduced to the South African market.

2008



Eva-Last introduces round hollow profiles
Eva-Last® upgrades its lightweight decking range to the round hollow profile which begins to outperform square hollow decking in the market.

2010



Solid summit board developed
No internal moisture retention, but boards have limitations in moving, shipping and installing. Did not allow for greater spans. So Sub-structure costs still high. No structural benefit, same span as round hollow.

2012

2014



Single sided arched boards
Eva-Last® sees potential in semi-solid profile designs and begins to develop a new lightweight composite board that can overcome moisture issues plaguing many hollow profiles.

2016



Accolades for Infinity bamboo composite
Eva-Last® releases a revolutionary bamboo plastic composite board called Infinity. At the same time develops I-Series in Eva-tech finish with immediate success.

2018



I-Series created with Infinity capping
Eva-Last® launches I-Series with Infinity™, and sets a new standard for lightweight composite decking.

2020

Ⓟ Patent Pending



MADE WITH SOLAR ENERGY



I-Series™

The strongest light-weight composite profile ever made.

I-Series track record

Eva-Last® is the world leader in the development and manufacture of lightweight, high performance composite decking profiles. It has been successfully tested in some of the harshest climatic environments that a deck can endure.



2015 Installation, South Africa

I-Series adds beauty as well as function to this stunning game reserve.



2012 Installation, Namibia



Eva-Last® composite thrives even in the harshest of conditions.

A look at recent history

The *I-Series* range was introduced to the African market in 2016, and Eva-Last® has painstakingly worked to enhance the overall features of this new step in direction of composite technology.

Eva-tech™



2016



Two versions of *I-Series* boards are successfully produced using Eva-tech™ first generation technology.

Infinity™



2018

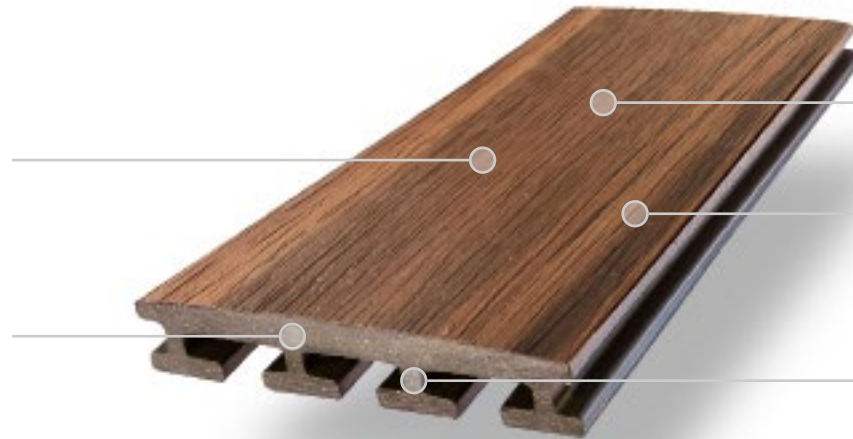


I-Series is enhanced through Infinity™ co-extrusion technology and advanced protective cap.

2019/2020

Infinity[™] engineered
polymer cap.

High density bamboo
fibre & polymer
composite core



Enhanced timber grain
surface aesthetics.

Greater and richer colour
variation.

Optimisation of I-beam
engineering principals



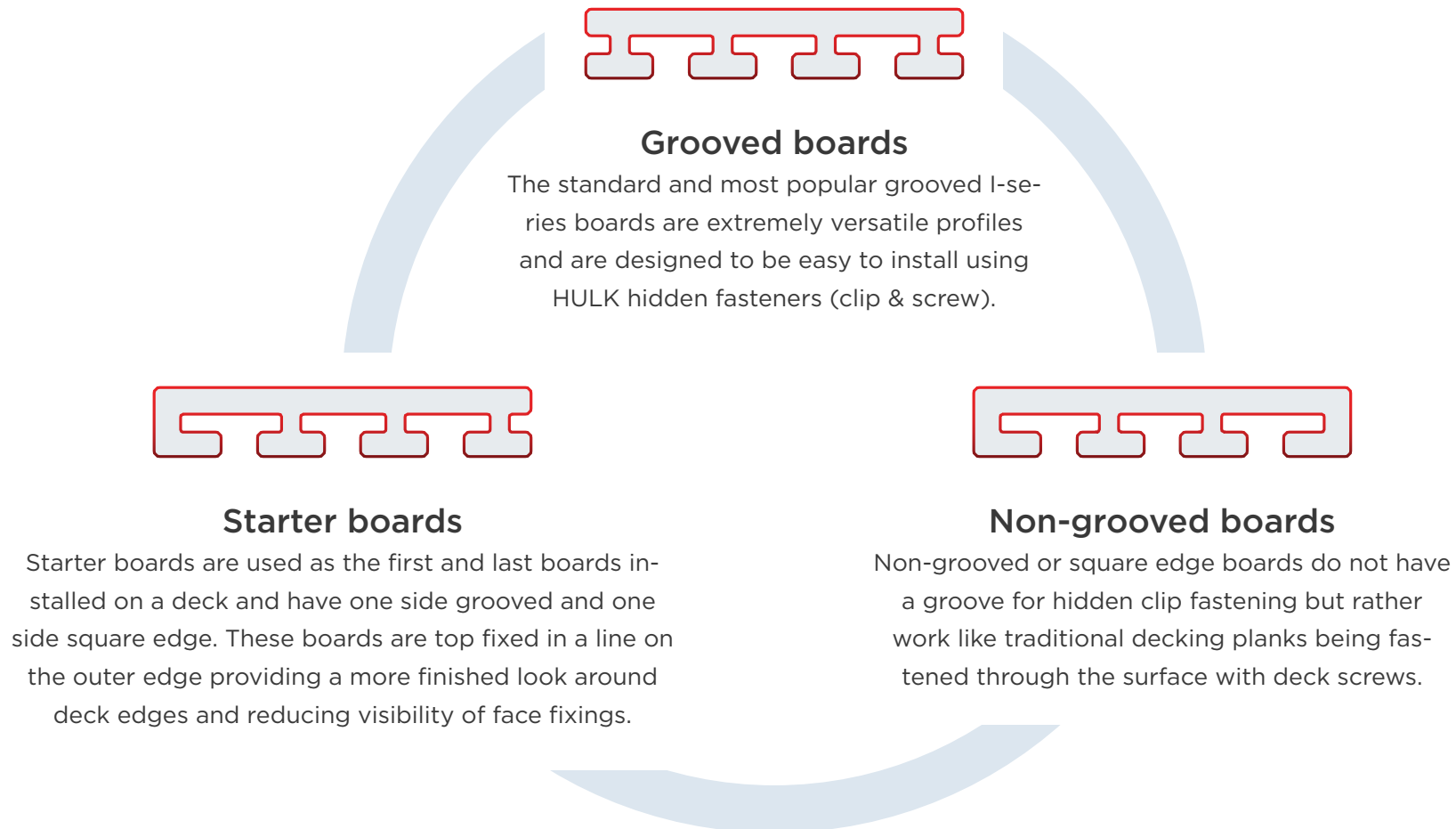
Infinity[™]

NEW colours, textures and finishes are offered exclusively for
I-Series family of profiles.

Superior capping technology
Greater slip resistance, deeper,
richer colours for a more natural look

Family of profiles

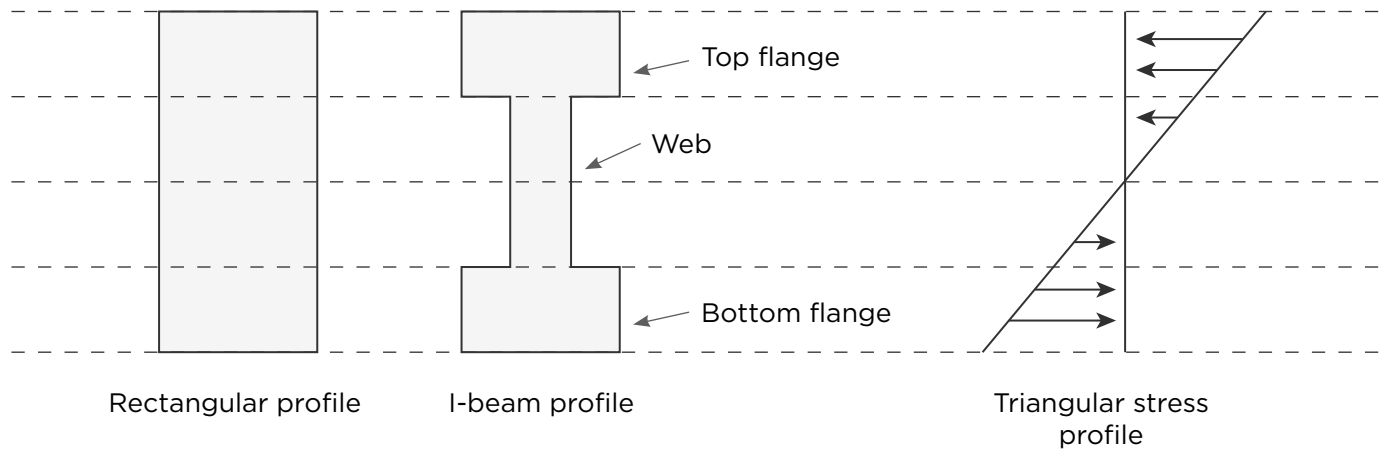
The *I-Series* product range includes grooved, non-grooved and starter profiles. This allows the range to be very useful in many decking situations including framing, starter boards, trim, cladding and vertical applications.



The background of the slide features a series of overlapping, semi-transparent gray shapes. These shapes include a large, light gray curved form in the upper right, a darker gray curved shape below it, and a large, light gray angular shape in the lower right. The overall effect is a modern, minimalist design.

***I-Series* product architecture**

Why an *I*-beam?



The I-beam design is created to resist maximum bending. An I-section possesses great mechanical strength and is more **efficient and economical** than even a solid profile due to the following reasons:



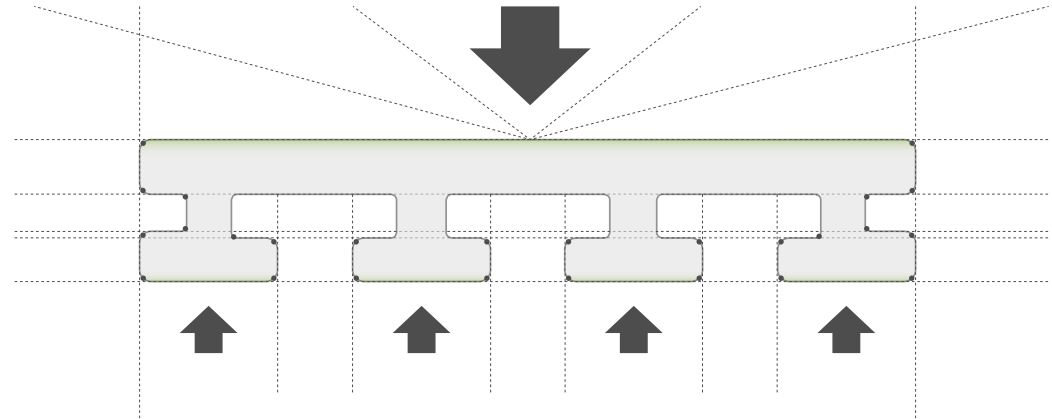
- 1. Stress profile** is triangular and near zero at the neutral axis. The middle portion of the beam resists bending, as compared to the top and bottom flanges.
- 2. I-beam** works out much **more economical** and it **saves on material costs**.

Structural integrity

Superior I-beam shape creates improved strength and increased load capacity.

The *I-Series* family of profiles has the highest possible flexural performance and stiffness, even superior to a solid profile. Load bearing and joist spacing are increased substantially through use of *I-Series* profiles in product testing.

Extensive testing undertaken to confirm the full extent of *I-Series* performance benefits.

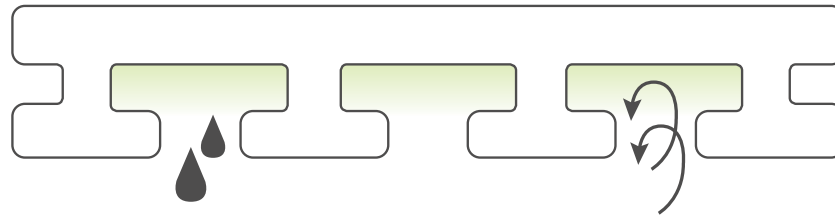


Three point ultimate load test example: I-Series vs competitor product

I-Series far outperforms other lightweight composite decking boards.

Board	Width (mm)	Thickness (mm)	Span (mm)	Max load (kN)	MOR (MPa)	MOE (MPa)
Eva-Last I-Series	135	25,5	400	4.9	32	5730.5
Competitor	137,6	23,8	400	1.6	12.079	1316.549

No internal moisture retention & greater ventilation



***I-Series* avoids moisture ingress issues and is well ventilated through the open sub-surface design.**

The biggest issue with hollow or light weight composite decking profiles historically has been moisture getting trapped in the chambers of the profile or moisture penetrating the product wall. This causes cracking, swelling and moisture driven expansion which can jeopardise the integrity of the material and cause surface deviation.

The *I-Series* product range solves this problem.

Moisture issues plaguing hollow boards

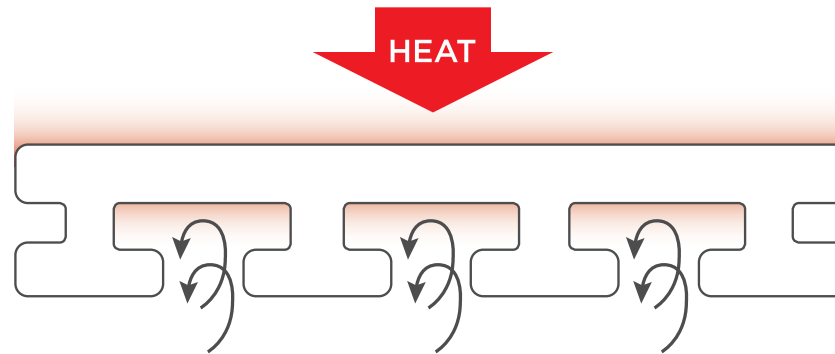


Swelling, warping and bending



Cracking and splitting

Improved heat dissipation



The *I-Series* design does not trap heat and has better ventilation.

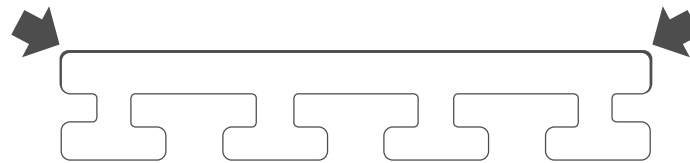
The *I-Series* range of profiles dissipates heat and evacuates hot air more efficiently than other profile shapes, which slightly improves surface heat build up.



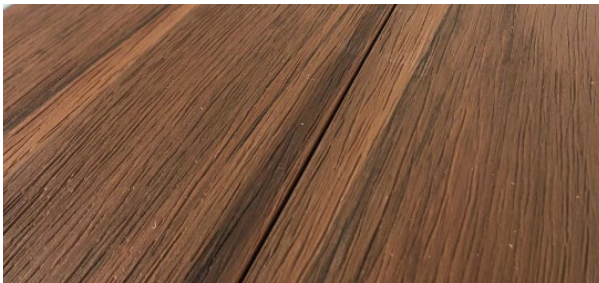
Less surface heat retention

The *Infinity*™ cap

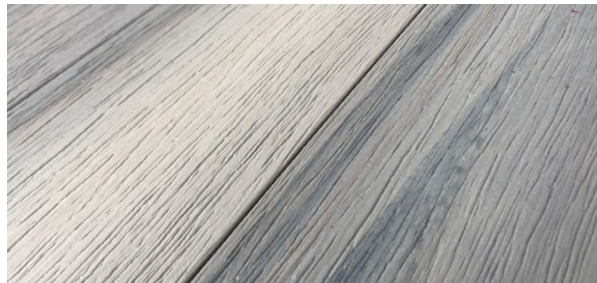
For years we have been working to make the best looking, highest performing, longest lasting capped decking profile on the market.
And we've done it.



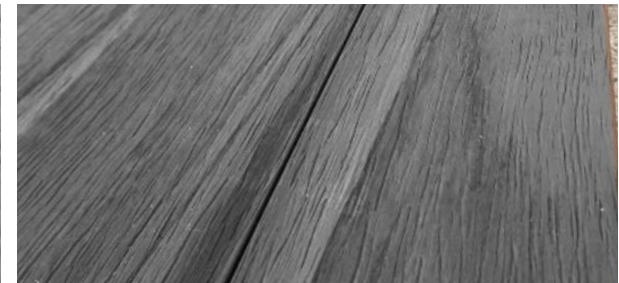
Popular colour examples with enhanced wood grain aesthetics



C06 TIGER COVE



C69 PACIFIC PEARL



C11 CAPE TOWN GREY

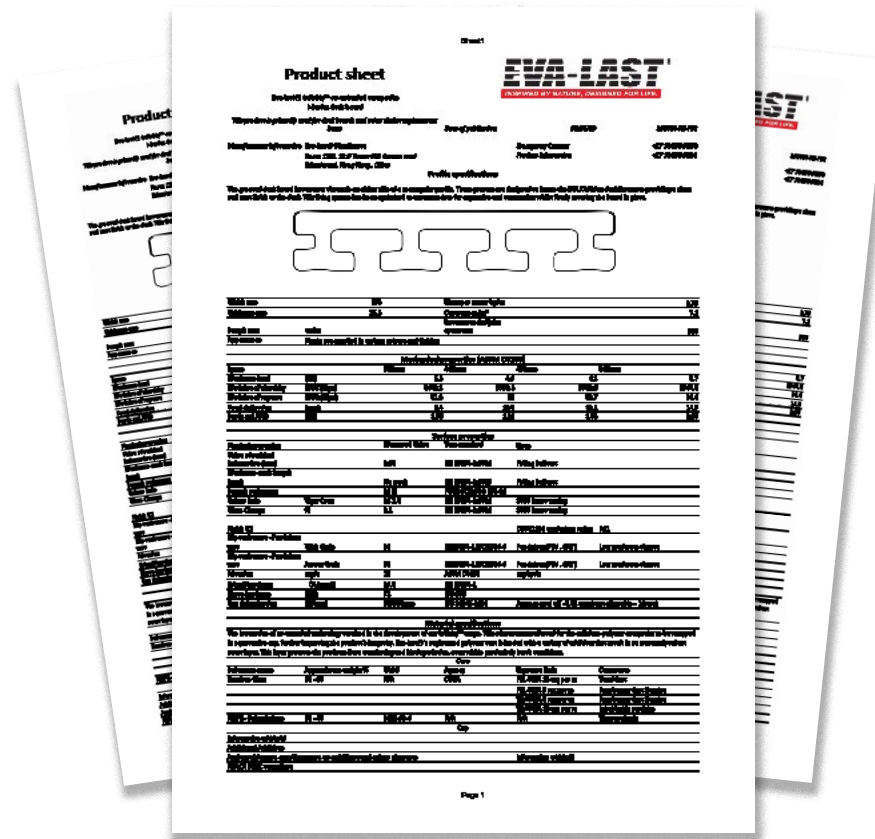
***I-Series** with *Infinity*™ capping technology*

I-Series is a capped, single sided decking profile which incorporates the renowned *Infinity*™ superior polymer capping technology.

***I-Series* product testing & results**

Extensive product testing

Years of extensive and meticulous real-life and lab testing have been carefully conducted on *I-Series* boards. Eva-Last® is proud to share this testing data and results with interested industry professionals.



For specific product test reports please visit www.eva-last.com

Example of improved mechanical properties

Results

Spans		350 mm	400 mm	450 mm	500 mm
Maximum load	(kN)	5.5	4.9	4.2	3.7
Modulus of elasticity	MOE (Mpa)	5449.2	5730.5	5753.8	5944.8
Modulus of rupture	MOR (Mpa)	31.6	32	30.7	30.4
Total deflection	(mm)	8.4	10.3	12.1	14.9
Loads at L/180	(kN)	1.38	1.26	1.06	0.96

For full mechanical testing and data results, please reference the I-Series Product Mechanical Data sheet.

Example of improved material properties

Results

Physical properties		Test standard	Note	Measured Value
Water absorption after 24 hours %		EN 15534-1:2014	Change in mass	0.2
Swelling after 24 hours %	thickness	EN 15534-1:2014		0.1
	width	EN 15534-1:2014		0
	length	EN 15534-1:2014		0
Water absorption after 28 days %		EN 15534-1:2014	Change in mass	0.6
Swelling after 24 hours %	thickness	EN 15534-1:2014		0.2
	width	EN 15534-1:2014		0
	length	EN 15534-1:2014		0.1

For full mechanical testing and data results, please reference the I-Series Product Mechanical Data sheet.

Recap of benefits



Light-weight



Cost effective



Longer span



Increased stiffness



Faster installation



Can't trap moisture

I-Series lightweight boards are engineered to perform better, look better and last longer. They have the durability of much heavier boards, but at a weight that is easier to transport and install. Their unique I-beam shape increases the stiffness of the boards, giving them a remarkable span of up to 600 mm. This industry-leading span calls for less substructure material and decreases installation time and costs for the end user.

I-Series is created for long-term performance with a design that drains rather than retains any moisture, making all moisture-related issues that once plagued composite a thing of the past. To top it all off, I-Series has been carefully constructed with a natural look surface, available in a range of handsome colours and finishes.



The business case



Reduced decking material costs



Reduced cost of fixtures and fittings



Reduced installation time (and cost)



Ships more square meters



Reduced cost of substructure



Less capital intensive

I-Series boards perform better but use less material - and create less waste - than traditional solid composite profiles or timber. I-Series have a lighter weight but greater span capacity than other composite boards, making transportation, handling and installation faster and easier. These features also save on the amount of substructure material required - up to 10% less than that used for wooden decks. The complementary hidden fastener system further reduces overall costs to the end user; I-Series boards require nearly 30% fewer fixtures and fixings for installation than other composites.

I-Series boards are more economical to ship, thanks to their lower mass and efficient two-board-bundling shipping method. In fact, distributors can receive up to 60% more square metres of decking in an I-Series shipment compared to other composites. This, in turn, helps make I-Series a less capital intensive product line for distributors to stock and promote. I-Series has just raised the bar on what composite should be.

Thank you

For more information regarding the *I-Series* decking range, please visit [**www.eva-last.com**](http://www.eva-last.com)