



by sustainable infrastructure systems



contemporary
innovative
sustainable



CORESpanTM
Co-Extruded Aluminium Wood Plastic Composite



CoreSpan®

by sustainable infrastructure systems

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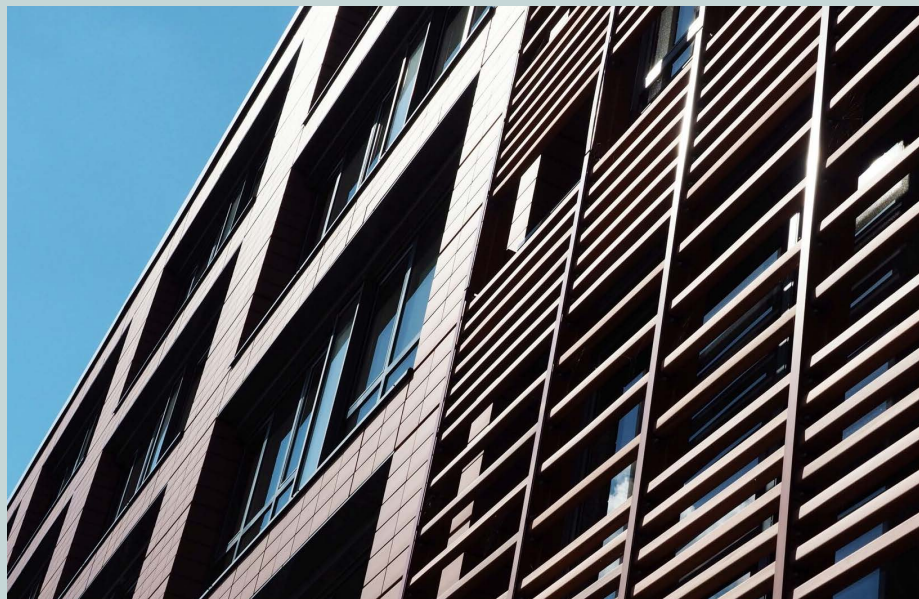
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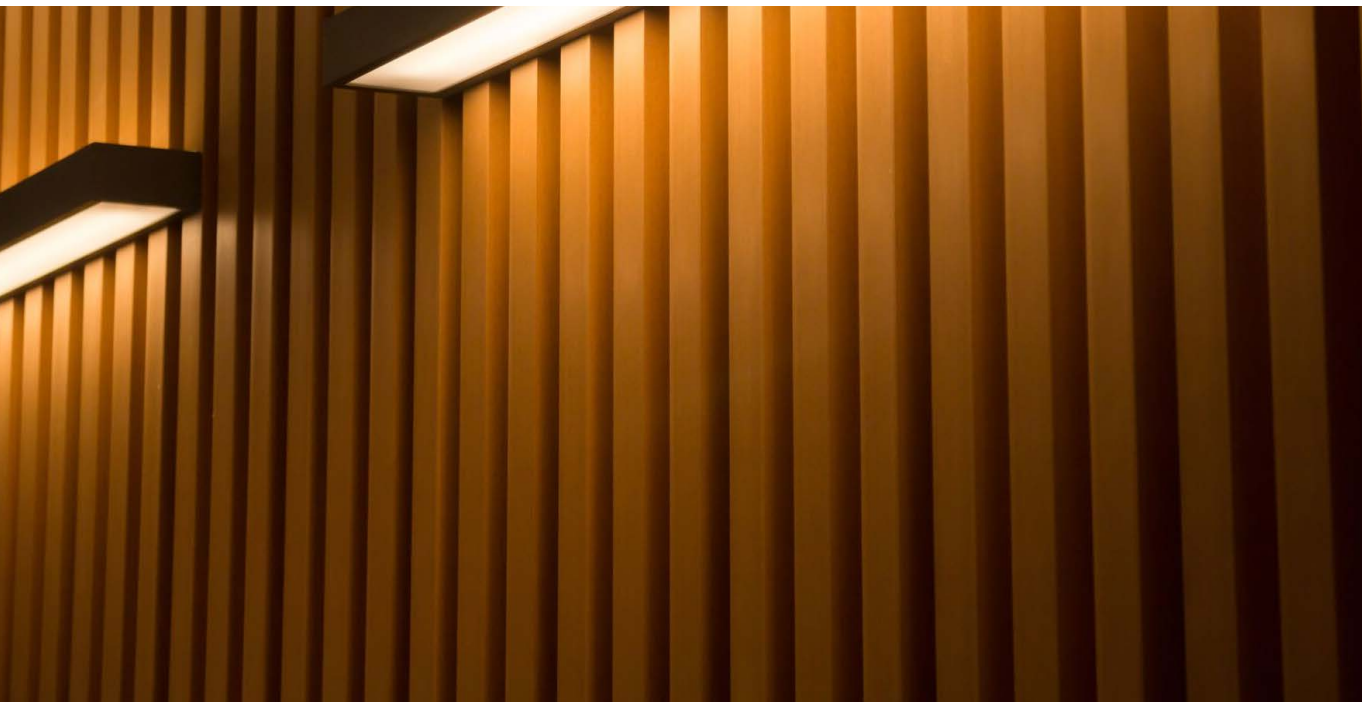


The Premium Alternative

SIS is a unique organisation focused on manufacturing and distributing sustainable and recycled products for diversified clients around the world. From recycled plastic, recycled wood plastic composites (WPC), fibreglass reinforced plastic composites (FRP) and recycled rubber through to our CoreSpan® co-extruded multi-composites and aluminium WPC hybrid composite and OEM manufacturing, SIS are market leaders in delivering sustainable products to customers in many markets. SIS specialises in delivering our product range to markets including Civil Infrastructure, Building & Construction, Oil & Gas, Mining, Aviation, Aquaculture, Marine & Ports, Transport & Logistics and Agriculture.



Sustainable infrastructure is not just about new infrastructure, it is about rehabilitation, reuse or the optimisation of existing infrastructure, which is consistent with the principles of sustainability and sustainable product development, whether it be from civil infrastructure to mining sectors. This encompasses infrastructure renewal, long-term economic analysis of infrastructure, energy use and reduced infrastructure costs, the protection of existing infrastructure from environmental degradation, material selection for sustainability, quality, durability and energy conservation, minimising waste and materials, the redesign of infrastructure in light of climate change and the remediation of environmentally damaged areas of our world. Clearly, sustainable infrastructure will lead to improvements to society through better socio-economics. Responsible design needs to balance social, economic and environmental issues.



Our Mission

SIS aims to set a responsible standard of sustainable product design and manufacture for our diverse client base in both the short and the long term. We all have a significant impact on the world around us and each of us should play a part in protecting future generations. Designers, engineers and planners have a big responsibility to set standards of product design that benefit the environment and the people who live in it. SIS's aspiration is that ultimately, talking about sustainability will become superfluous, because it will be the expected.

CoreSpan® represents the latest in extrusion technology, and SIS are at the forefront of the development of this revolutionary product. Australian clients demanded the look of timber through the use of WPC but required far greater strength than just WPC alone. SIS's CoreSpan® fabrication technology allows a WPC member to be extruded with an aluminium inner core making it a multi-composite extrusion.

The use of aluminium increases strength to hollow WPC sections. Member strength requirements are ultimately determined by our client's needs, and the end use of the member. CoreSpan® has the look and feel of WPC but with the hidden added benefit of strength. This state-of-the-art manufacturing process has been mastered to deliver zero delamination of the external surface, nor will it rot, split, crack, rust or attract vermin.





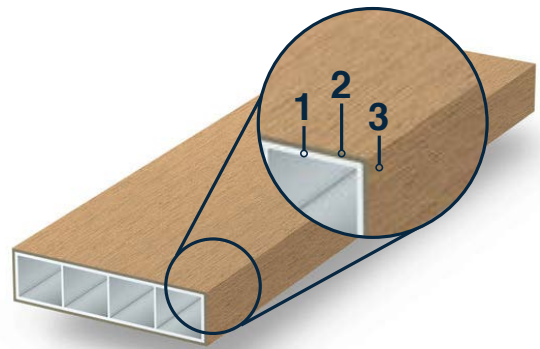
contemporary

Hybrid Technology

1 RECYCLED 6063 ALUMINIUM

2 COPOLYMER RESIN

3 OUTER SKIN



Using the Latest Manufacturing Technology

CoreSpan® has a design life well in excess of 60 years. Manufacturing lengths range from 200mm to 10000mm.



Composites



StructuralComp® FRP (Fibre Reinforced Plastic) is manufactured using only the very best materials guaranteeing stakeholders superior corrosion resistance, product quality, permeated colour and long term overall performance. In most cases, StructuralComp® represents the best material to handle any given service environment given our ability to manufacture using specific resin components. It's corrosion resistance combined with strength and extended design life, compared to more traditional materials, makes it the most economical and acceptable solution available today for the construction of pedestrian structures. With a choice of colours and the ability to manufacture to specific fire

ratings & codes, StructuralComp® FRP is the material of choice for designers, specifiers and installers and is available in three different resin series, each with their own associated benefits.

Another distinct advantage of StructuralComp® FRP is its low weight-to-strength ratio. Depending on lay-up structure, StructuralComp® FRP can weigh approximately 20% of that of steel, and half as much as aluminium. StructuralComp® FRP is also non-permeable nor will it conduct electricity making it one of the best materials to specify for the construction of bridges, boardwalks and viewing platforms.



SISCo-FC® Construction Systems for Composites are a component driven, out of the box system which is pre-designed and certified using SIS materials including FRP, WPC, Multi-Composite, aluminium WPC hybrid extrusions and pultrusions. Designed and developed using over 20 years of resin based construction expertise, this unique customised system eliminates the need for costly cutting and drilling of components on-site and dramatically reduces waste from these actions. Lightweight component properties allows for better manual handling, reduces the risk of WH&S incidents and prevents the need for large, costly lifting equipment to be used at installation. SISCo-FC® construction systems take cost effective materials, use

clever design to deliver stakeholders superior pedestrian structures with a superior design life compared to structures built from more traditional materials.

High Tech Manufacturing & Quality Materials

Products designed, manufactured and supplied by SIS embody state of the art technology and are engineered by our teams to deliver enhanced performance and sustainably effective operation for customers worldwide. All our products are manufactured to the highest industry standards, following strict quality assurance guidelines. With many employees dedicated to production, quality product and technical expertise is ensured at all times. Excellent long term relationships with our key suppliers of raw materials and components provide confidence in material quality as well as sustainable and efficient manufacturing and supply chain processes.

The close relationship with our research and development division ensures that SIS manufacturing teams can react quickly and professionally to customer needs. SIS has built a reputation based on excellent customer service, high quality manufacturing and on providing the right solution in sustainable product design and manufacturing. Continuous improvement of equipment design, materials and manufacturing tech

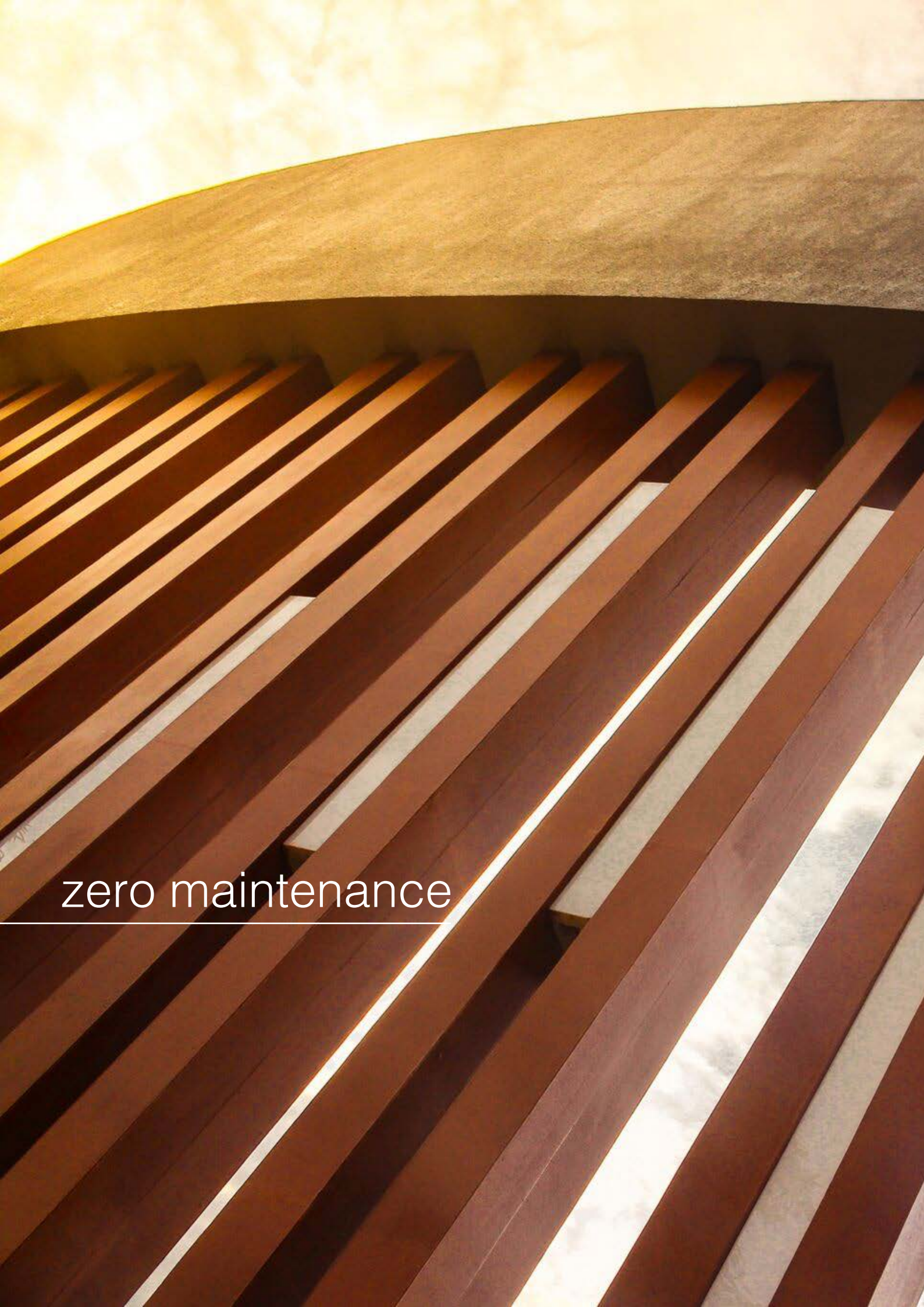
nology ensures SIS maintains its capability of offering clients the latest and most commercially viable sustainable products available. SIS also works with clients to develop specific solutions to meet their unique needs through the application of research and development efforts in a partnering relationship.

We manufacture and supply products from materials that include:

- Recycled Plastic
- Recycled Plastic Panel
- Fibreglass Reinforced Plastic
- Recycled Wood Plastic Composite
- Recycled Rubber
- Aluminium / Wood Plastic Composite

With a global network of offices and manufacturing facilities, along with projects in Africa, the Middle East, Asia, Australia and the Pacific Rim, SIS can be trusted to provide easy, efficient and seamless supply to almost all places on earth.





zero maintenance

Design, Engineering & Testing

SIS have commissioned NATA accredited testing to undertake a number of tests using WPC and FRP samples of various sizes, in order to determine the relevant engineering properties of the material for use in design calculations. The testing has generally been undertaken in accordance with the ASTM (American Society for Testing and Materials) International standard test methods for testing of plastics. ASTM International was formally known as ASTM. The European standard EN

13706:2002 Reinforced Plastics Composites-Specifications for Pultruded Profiles is commonly used for testing FRP material. The testing has established such values as bending, compressive and tensile strengths, Young's modulus of elasticity, screw pullout capacities and thermal expansion coefficient. Tensile properties from FRP tests can be obtained as per AS 1145:2001 Determination of tensile properties of plastic materials, which is based on ISO 527.





sustainable

Enduring Performance

Projects finished with CoreSpan® hybrid profiles exhibit the exceptional aesthetic qualities of natural wood, with superior durability. CoreSpan® represents the future of design through innovative material selection and manufacturing processes. Unlike natural timbers, CoreSpan® will never fade, warp, rot or generate splinters. CoreSpan® profiles are durable, dimensionally stable, remain perfectly straight and can be installed even under the most extreme climatic conditions.

CoreSpan® compared to standard WPC



- Dimensionally stable.
- High mechanical strength.
- Easily installed.
- Durable.
- Colour fast.



- Bendable.
- Versatile.
- Customised lengths & radius.



- Aesthetic, natural texture.
- Lightweight.
- No PVC, no formaldehyde.

CoreSpan® compared to natural wood



- Sustainable and durable.
- No cracking, no splintering, no warping.



- Maintenance free.
- Can be cleaned with water.
- No greying, no fading.



- No finishing required.
- Endures extreme climates.
- No rotting.
- No mould.

CoreSpan® compared to lacquered aluminium



- Natural look and feel.

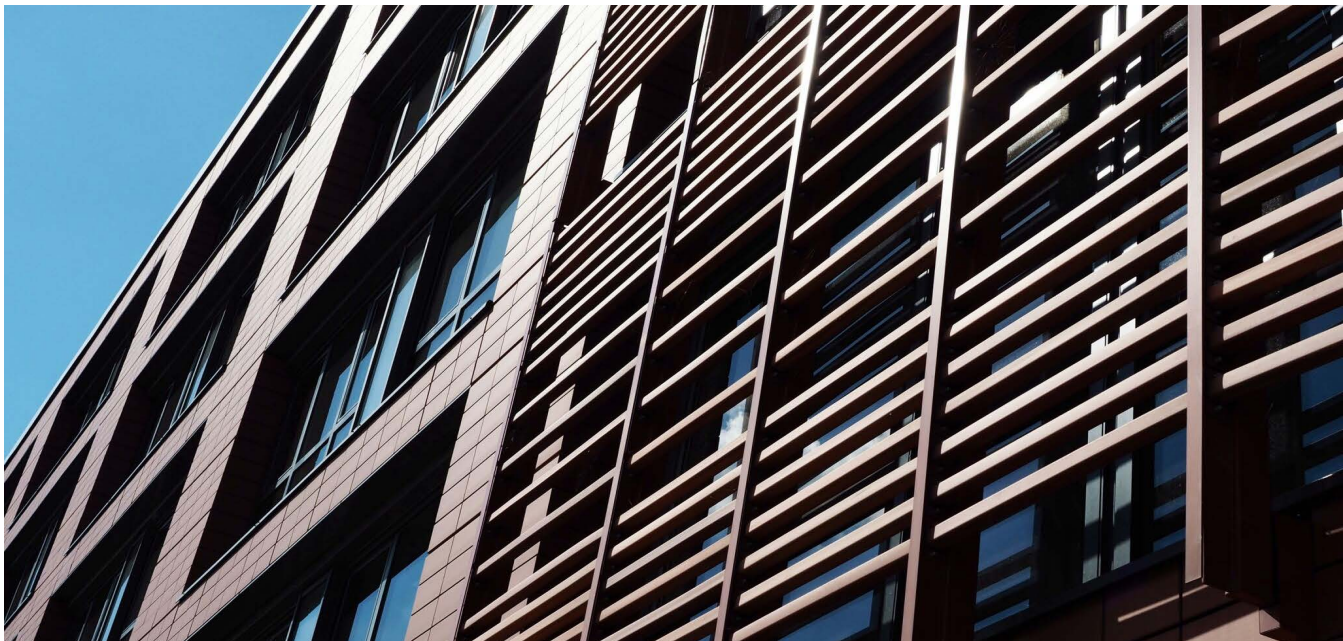
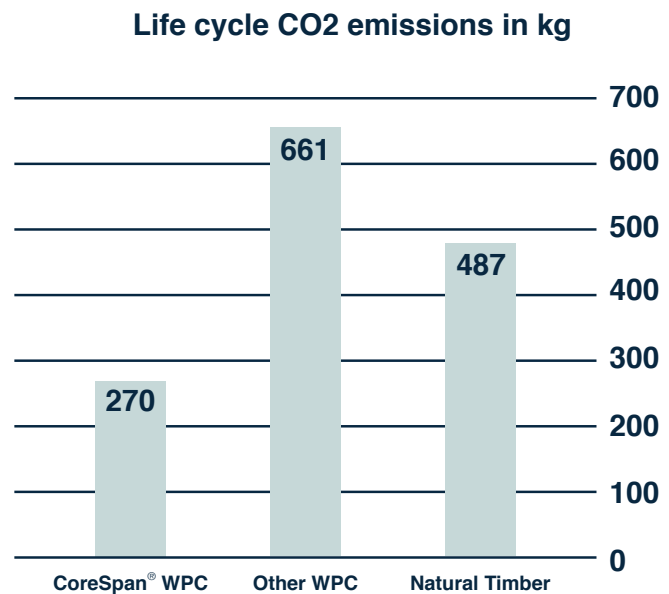


- Easily repairable if damaged.
- Can be ripped, sanded or corrected on site, if necessary without dismantling

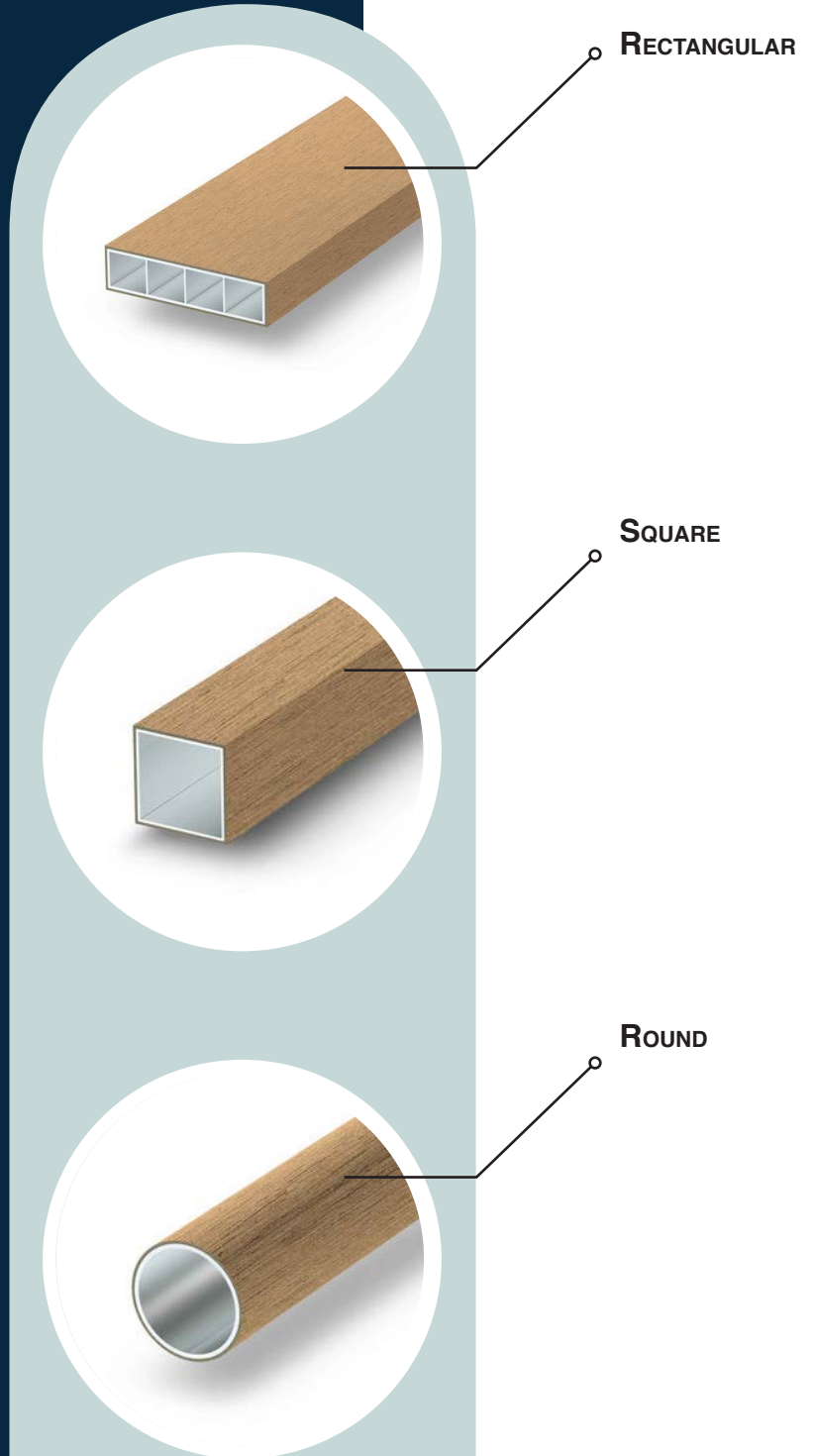


Low Carbon Footprint



















Product durability and reducing our carbon footprint is becoming increasingly important in the construction sector. An ecological building contributes to human health, respects the planet, and increases building value. The Japanese Wood Plastic Industry Committee completed these tests in February 2008. They showed that the manufacturing of CoreSpan® hybrid composite has a smaller ecological footprint than natural timbers. The technology used allows for the reduction of CO2 during the production when compared to conventional products. In addition, because CoreSpan® is manufactured with recycled materials, our products themselves are 100% recyclable, a perfect example of ecological stewardship.








Profiles






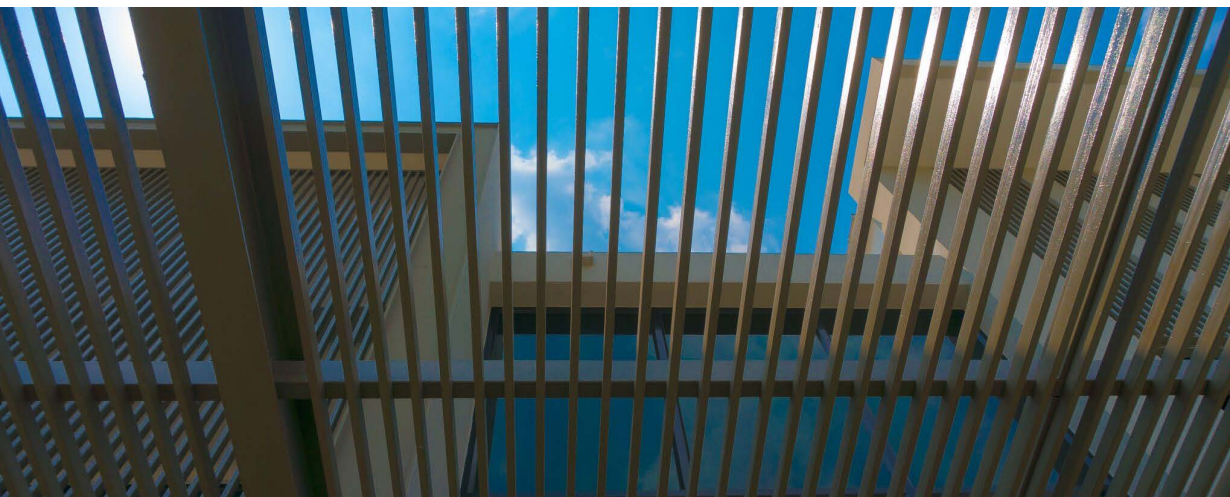
Profiles

RECTANGULAR	WIDTH (MM)	THICKNESS (MM)	
REC001	40	30	
REC002	52	32	
REC003	60	30	
REC004	60	40	
REC005	70	40	
REC006	80	30	
REC007	93	43	
REC008	100	15	
REC009	100	30	
REC010	105	53	
REC011	126	28	
REC012	128	53	
REC013	145	22	
REC014	150	60	
REC015	200	35	
REC016	600	60	
REC017	300	75	
REC018	350	110	

Profiles

SQUARE	WIDTH (MM)	THICKNESS (MM)	
SQR001	45	45	
SQR002	53	53	
SQR003	87	87	
SQR004	88	88	
SQR005	120	120	

ROUND	DIAMETRE (MM)	
RND001	50	
RND002	60	
RND003	70	





innovative

Colours



desert red



saddle brown



ash grey



black graphite

A photograph of a modern outdoor patio area. In the foreground, there's a wooden deck. To the left, a white pergola with horizontal slats covers a seating area with black lounge chairs and a small table. To the right, a swimming pool with blue tiles is visible. The background features greenery and a city skyline under a clear sky.

Anti-Crush

Hollow sections must be protected from crushing due to the over tightening of fixings. SIS achieves this in a very easy and cost effective way by simply installing anti-crush tubes over the bolt prior to the insertion through the section. Pre-drilled holes in the section accommodates the tube which are supplied at an exact length allowing for the correct amount of compression on the connection without crushing the section.

Warranty

Subject to the limitations set forth in this Warranty, Sustainable Infrastructure Systems (Aust) Pty Ltd ('Manufacturer') warrants that the CoreSpan® structural shapes ("product") will be free of manufacturing and design defects and meets the specifications (if any) provided by the Manufacturer to the first purchaser ("customer") at the time of purchase. This limited warranty applies only to the structural serviceability and does not apply to superficial blemishes, discoloration, and/or other defects that occur with aging and normal use. If, in response to a warranty claim, Manufacturer issues a refund for the purchase price of the product, the refund amount shall be determined by prorating the purchase price amount based upon length of use during a seventy-five (75) year product lifespan. Except where otherwise required by law, the warranty runs solely to the customer.



The customer is solely responsible for determining the effectiveness, suitability and safety of any particular use or application of the product. This warranty shall be invalid if a loss occurs from improper installation, normal wear and tear, misuse, intentional or unintentional abuse, settlement or shifting of the earth or any supporting structural components used in conjunction with the product, user negligence, modification of the product, accidents, improper maintenance, impact of foreign objects, or cyclones, floods, fire, or other acts of God. This warranty does not cover applications involving exposure of the product to chemicals or other pollutants.

THIS WARRANTY SET FORTH ABOVE IS EXCLUSIVE AND IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR USE. IF THE PRODUCT DOES NOT CONFORM TO THE WARRANTY ABOVE, MANUFACTURER MAY, AT ITS OPTION, REPAIR OR REPLACE THE PRODUCT. MANUFACTURER WILL NOT BE LIABLE FOR, AND CUSTOMER IS SOLELY RESPONSIBLE FOR, LABOR, INSTALLATION, REINSTALLATION, FREIGHT, TAXES, OR ANY OTHER CHARGE RELATED TO THE FOREGOING.

The customer must give notice of any warranty claim within ten (10) days of discovery and include proof of purchase, photograph of defect, and written description of defect. Manufacturer reserves the right to investigate any claim hereunder. Upon verification of a claim, Manufacturer shall arrange for the delivery of replacement product or repair the defective product, within a reasonable time.

CUSTOMER'S REMEDY WITH RESPECT TO BREACH OF WARRANTY SHALL BE LIMITED AS SET FORTH ABOVE. IN ALL OTHER CASES, MANUFACTURER'S LIABILITY SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT. MANUFACTURER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY; (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD BY MANUFACTURER, OR ANY UNDERTAKINGS, ACTS, OR OMISSIONS RELATING THERETO; AND (3) ALL CONSEQUENTIAL, INCIDENTAL, EXEMPLARY, CONTINGENT, AND OTHER DAMAGES WHATSOEVER.

Without limiting the generality of the foregoing, Manufacturer specifically disclaims any liability for penalties (including administrative penalties), special or punitive damages, damages for lost profits or revenues, loss of use of products or any associated equipment, cost of capital, facilities, or services, downtime, shut-down or slow-down costs, spoilage of material, or for any other types of economic loss.

This Warranty may not be altered except in a written instrument signed by Manufacturer. No dealer or other person or entity is authorized by the Manufacturer to make statements or representations regarding the performance of the product except as contained in this Warranty, and the Manufacturer shall not be bound by any such statements.



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