

PERMASTRUCT®

LOW MAINTENANCE. ECO FRIENDLY. SUBSTRATE SOLUTIONS

FRP SUBSTRATES

PermaStruct® Fibre-reinforced-plastic members have a high strength to weight ratio obtaining comparative or better performance to traditional F27 timber materials with the added benefits of being up to 50% lighter, waterproof and corrosion proof. With increased longevity and superior strength.





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PERMASTRUCT® FRP SUBSTRATES

PermaStruct® FRP & F27 Hardwood Performance Comparison

The below table shows the typical residential and commercial loading structural performance of F27 hardwood. PermaStruct® has created profiles that obtain the same performance at a lighter weight, which allows like for like substitution. No complicated span tables are needed!

Profile Shape	F27 Hardwood Profile	Codes	Item Codes	PermaStruct® FRP Equivalent	Load (Kpa)	Joist Spacing (mm)	Single Span (mm)
 	50x50*	PB53x53x3.55	PB53X53X3.55	53x53x3.5mm - SHS	3	450	1100
	90x45	PC90x53x65	PC90X53X65	90x53x6mm - C Channel	3	450	1800
	140x45	PC155x53x6.35	PC155X53X6.35	155x53x6.3mm - C Channel	5	450	2400
	190x45	PC250x63x6.35	PC250X63X6.35	250x63x6.3mm - C Channel	5	450	3600

*50x50 profile available from mid-2022.

Benefits of PermaStruct® FRP

- Comparative FRP profiles are up to half the weight per lineal metre when compared with F27 timber.
- FRP alternatives match the structural performance of the F27 hardwood in load, joist spacing and bearer spans.
- Longer lasting than hardwoods and not susceptible to moisture, mould, rot or white ants.
- Greater flexural strength, meaning it is less likely to experience mechanical failure.

Available in Dark Grey RAL:7024
*Custom colours available for larger orders

7024
Graphite
Grey

Properties of PermaStruct® FRP

- Compliant with Australian Standards and Building Codes Of Australia (AS1145, AS1170, AS5100, AS1657).
- Pre-drilling required, coarse thread screws or bolts required for connections. Please refer to the technical guide for typical connections.
- Compliant with AS1530.3 - Early Fire Hazard Properties

Availability of PermaStruct® FRP

- Available in 5.80m lengths, custom lengths available at minimum order quantities of 800 L/M (lead times apply).
- Large orders are available with a 16 week lead time.
- Profiles available in Graphite Grey RAL7024. Custom RAL colours available with min order quantities of 800 L/M.

PERMASTRUCT® FRP SUBSTRATES

PermaStruct® FRP Substrates Typical Connections

