



A Simpson Strong-Tie® Company

**SIMPSON**

**Strong-Tie**

## S&P FRP Systems

Structural strengthening solutions

- S&P C-Laminate
- S&P C-Sheets
- S&P C-Rods
- S&P C-Anchor





# S&P FRP Systems

S&P FRP Systems by Simpson Strong Tie are structural reinforcement solutions which are manufactured using high quality carbon fibres, aramid and glass fibres, which are installed using tested and certified epoxy adhesives and saturants. In civil and structural engineering, FRP systems are used for static reinforcement of structures during conversions, system adaptations or building upgrades. Depending on the structure material (concrete, masonry, steel, wood) or static requirement (bending moment, shear force, normal force, seismic load), either C-Laminates, C-Rods or C-Sheets can be installed. In cases where it is required to combat larger deflection or vibrations, pre-stressed S&P C-Laminates are often the preferred option. The high strength, lightweight and corrosion resistant reinforcement products and systems can be used in many applications. With the help of the S&P Adhesive-forming unit and the S&P Wet-lay-up machine for the pre-impregnation of S&P Sheets, the application of the reinforcement on the construction site can be economically and efficiently improved.

## ADVANTAGES

- Very high tensile strength
- Durable, corrosion resistant materials
- Low deadweight and building height
- Increases the durability
- Excellent behaviour in fatigue
- Water vapour permeable epoxy resin
- Special types upon request (cross section, E-Modulus)
- Simple, flexible and economic technology
- Advice/Engineering throughout all phases
- Own production facilities for laminates and sheets in Europe
- Tested system solutions with system guarantee
- ISO9001 manufacturing processes
- Complies to AS5100.8



## Projects



Surface applied S&P C-Laminate  
(Bending)



Slot-applied S&P C-Rod  
(Bending)



S&P C-Sheet  
(Shear)

# Our product range at a glance

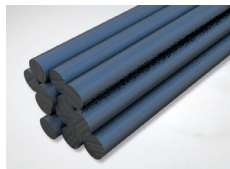
## CFRP PLATES & RODS

S&P C-Laminate (Carbon Fibre plates)		S&P C-Rod (Carbon Fibre bars)
Type SM * (150/2000) E ≥ 170 kN/mm²	Type HM * (200/2000) E ≥ 205 kN/mm²	E-Modulus ≥ 3300 MPa
Cross sections from 10/1.4 to 150/1.4 mm	Cross sections from 20/1.4 to 120/1.4 mm	Dia: 8mm, 10mm, 12mm and 14mm
Roll length: 100 or 150 m *	Roll length: 100 or 150 m	Length: 6m or 12m*
* SM = Standard E-Modulus / HM = High E-Modulus		*12m length available in 12mm diameter rod

S&P Resin	
S&P Resin 220 HP (Epoxy adhesive for laminates and rods)	
Delivery form	15kg Kit



S&P C-Laminate



S&P C-Rods



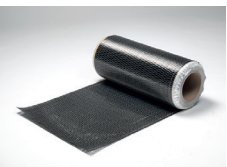
S&P Resin 220 HP

## CFRP FABRIC & ANCHOR

S&P C-Sheet (Carbon Fibre wrap/sheets)		
Types	S&P C-Sheet 240	S&P C-Sheet 640
E-Modulus	≥ 265kN/mm²	≥ 640kN/mm²
Fibre weight	from 200 g/m² up to 600 g/m²	
Roll length	50 m or 100 m	
Roll width	300mm	

S&P Resin	
S&P Resin 55 HP (Saturating resin for sheeting and primer)	
Delivery form	6kg Kit

S&P C-Anchor (Carbon Fibre Dowel anchor)	
E-Modulus	≥ 240kN/mm²
length of flexible fan	280mm
length of dowel section	170mm
Cross section (net carbon fibre)	50.6mm²
Dia of dowel	10mm



S&P C-Sheets



S&P C-Anchor



S&P Resin 55 HP

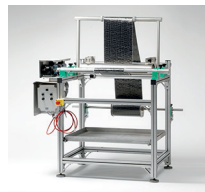
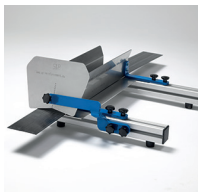
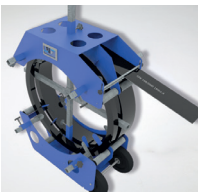
Note: Unique integration of solid dowel and fan



## Application Tools

### Devices and Processing aids

Roll dispenser for laminates, adhesive-forming unit, wet-lay-up machine



### Design Software

FRP Lamella	Design software for flexural and/or shear reinforcement with S&P FRP Systems
FRP Colonna	Design software for reinforcement of centrally loaded concrete columns by wrapping S&P FRP Sheets

Please visit our website at [www.sp-reinforcement.eu](http://www.sp-reinforcement.eu) for English detail: Software/References/Technical data sheets





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Scan this QR Code to discover our product range or visit:  
<https://strongtie.com.au/products/>

Please visit the S&P Global website at [www.sp-reinforcement.eu/](http://www.sp-reinforcement.eu/) for:  
Design Software/References/Technical data sheets

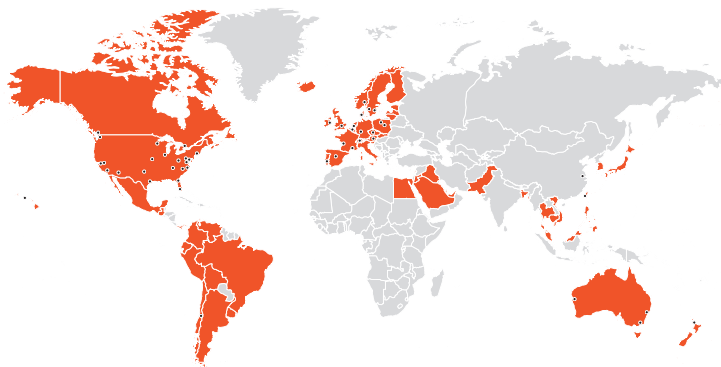


Since 2012 S&P has been part of Simpson Strong-Tie, an international building products company established in 1956 and based in California with multiple locations across the world.

With in-house manufacturing and Sales Office locations throughout the world, Simpson Strong-Tie is your trusted quality partner.

By combining the strengths of our two brands, Simpson Strong-Tie and S&P we can deliver the highest level of quality and service to meet your concrete strengthening needs.

We look forward to working with you on your next project.



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