

Trussforte Stair Treads products have been engineered to suit customer provided stingers and supporting structures. This addition to our product range is Australian designed and manufactured. These stair treads incorporate our expertise and skill with the manufacture of our expanded metal products, which has been utilized as the tread surface. Stair treads are fully fabricated and welded from structural mild steels, expanded metal mesh and laser cut side bolt plates.

Stair Tread Load Testing - AS1657:2013

The TrussForte stair treads have been designed in accordance AS1657:2013, and have been fully load tested for compliance with service and ultimate load ratings, as well as deflection characteristics, using NATA calibrated equipment. Stair tread load testing has been carried specified in appendix AS1657:2013, in particular sections D4.1-D4.3 inclusive. Stair tread test results obtained actually surpass the Australian Standards criteria with maximum deflections of less than half the allowable deflections listed for the specified service loads. Stair treads have additionally been tested in excess of the advised ultimate load values without any failures.



Stair tread loading and testing is based on the stair treads being structurally independently of the adjoining elements. Compliance with the Australian Standard AS1657 designed live load of 2.5kPa, as well as the tabulated 4.0kPa and 5.0 kPa loads listed in table 3.1 of Australian Standard AS1170.1, if applied to individual stair treads will result in loads and deflections that fall within the test criteria of AS1657.

Note that compliance/testing of complete stair tread assemblies is the responsibility of the staircase designer/fabricator. Testing for every scenario and configuration of staircase design due to the vast scope of possible arrangements in regard to rises, goings and fitment to side or bottom stringer configurations of various materials, sections sizes and staircase lengths is not with the scope of supply of our stair treads.

Slip Resistance Classification - AS4586:2013 & AS4663:2013

As well as meeting Australian Standard load requirements, our stair treads also comply with the specified resistance to slip as indicated in AS1657:2013 and the current National Construction Codes (NCC) / Building Codes of Australia (BCA). The stair tread surface has been fully tested accordingly to AS4586:2013 / AS4663:2013, using NATA certified and accredited equipment, so that you can be assured that our products meet all the current compliance requirements within Australia. Testing has been performed with both the Wet Pendulum Slip Test as well as the Oil-Wet Inclining Platform Slip Test. Note that compliance to either of these test methods is required (not both), however, we have tested to both criteria for substantiation.



Slip Resistance Classification - Requirements (NCC/BCA) and Test Results

Application	Surface Condition		Actual Test Results	
	Dry	Wet	Black Mild Steel	Galvanised
Tread Surface	P3 or R10	P4 or R11	P5 or R13	P5 or R12
Nosing Strip	P3	P4	P5	P5

To our knowledge, our stair tread products are the only stair treads on the market that have been certified and tested to the extent indicated.

For reference, the following tables have been reproduced from AS4586:2013 showing the relative class ratings for both Wet Pendulum Slip Test and Oil-Wet Inclining Platform Slip Test.

Table 2 - Classification of Pedestrian Surface Materials
According To The AS4586 Wet Pendulum Test

Class	Pendulum SVR (Sli	Pendulum SVR (Slip Resistance Value)		
	Slider 96	Slider 55		
P5	>54	>44		
P4	45-54	40-44		
Р3	35-44	35-39		
P2	25-34	20-34		
P1	12-24	<20		
P0	<12			

Note: Higher slip resistance values (SRV) = greater resistance to slip

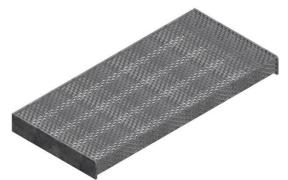
Table 5 - Classification of Pedestrian Surface Materials
According To The Oil-Wet Inclining Platform Test

Class	Angle, Degrees		
No Classification	<6		
R9	≥6<10		
R10	≥10<19		
R11	≥19<27		
R12	≥27<35		
R13	≥35		

Sizes and Styles

Stair tread configurations are available for conventional bolted side mount fixing, or convenient bottom mount fixing, which will suit many common design standards that architects and engineers have adopted.

TrussForte stair treads can be used in any domestic, commercial or industrial application, and come in five (5)



standard tread width sizes (600mm, 750mm, 900mm, 1200mm & 1500mm). Note that these sizes are all meet the Australian Standards criteria.

Stair treads are also available in four (4) tread depths sizes (225mm, 275mm, 325mm & 375mm) which are sized to meet Australian Standards. This choice of tread depths provides a vast array of designable Riser and Going configurations for any application, whether it is to minimise staircase space requirements, fit existing floorplan areas, or provide architectural inspired concepts.



Additionally, we offer our stair treads with a corrosive resistant hot dip galvanised coating, or a raw (black) mild steel finish which customers can then finish in their choice of coatings (e.g. painting, powder coating, electroplating, etc.)

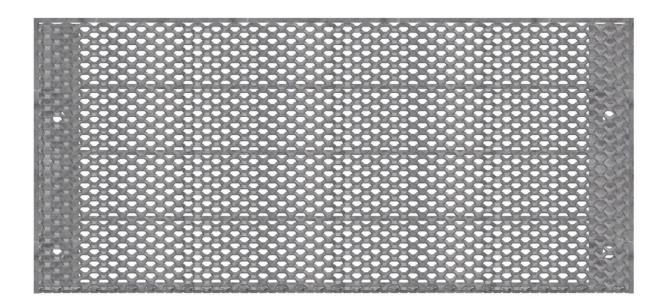
As described above, our stair tread design incorporates the use of one of our versatile expanded metal mesh patterns as the tread surface. Its characteristic saw tooth profile provides a decorative architectural look that is functional and aesthetically pleasing to the eye. The expanded metal pattern provides an extremely durable grip surface, and has a minimal aperture size of approximately 10mm x



3.5mm, which is suitable for rapid drainage in wet areas, as well as being heel safe for all types of footwear. The expanded metal mesh surface is also strong and relatively lightweight, and will allow dry debris from shoes to readily fall through the tread without build up. At the same time, the tread surface aperture size is small enough to prevent accidental dropping of keys, tools or valuables from falling through the mesh pattern. Note that the prevention of objects larger than a 15mm spherical diameter are also required to be prevented from passing through stair treads/landings that are above work areas. This is a requirement of Australian Standard AS1657:2013

Stair tread nosing is also a continuation of the tread mesh surface pattern. We have engineered this feature in a wraparound design to provide a clean continuous look that gives the stair tread its aesthetic appearance.

All stair treads are manufactured with the aid of suitable jigs. This ensures that all items are consistent in size and configuration (whether they were made last month, or newly manufactured next week, or next year).





Available Product Range

Side Mount Stair Treads:

Product Code	Tread Depth (mm)	Tread Width (mm) †	Finish
225S600B / 225S600G	225	600	Black / Galvanised
225S750B / 225S750G	225	750	Black / Galvanised
225S900B / 225S900G	225	900	Black / Galvanised
225S1200B / 225S1200G	225	1200	Black / Galvanised
225S1500B / 225S1500G	225	1500	Black / Galvanised
275S600B / 275S600G	275	600	Black / Galvanised
275S750B / 275S750G	275	750	Black / Galvanised
275S900B / 275S900G	275	900	Black / Galvanised
275S1200B / 275S1200G	275	1200	Black / Galvanised
275S1500B / 275S1500G	275	1500	Black / Galvanised
325S600B / 325S600G	325	600	Black / Galvanised
325S750B / 325S750G	325	750	Black / Galvanised
325S900B / 325S900G	325	900	Black / Galvanised
325S1200B / 325S1200G	325	1200	Black / Galvanised
325S1500B / 325S1500G	325	1500	Black / Galvanised
375S600B / 375S600G	375	600	Black / Galvanised
375S750B / 375S750G	375	750	Black / Galvanised
375S900B / 375S900G	375	900	Black / Galvanised
375S1200B / 375S1200G	375	1200	Black / Galvanised
375S1500B / 375S1500G	375	1500	Black / Galvanised

Notes:

Bottom Mount Stair Treads:

Product Code	Tread Depth (mm)	Tread Width (mm) †	Finish
225B600B / 225B600G	225	600	Black / Galvanised
225B750B / 225B750G	225	750	Black / Galvanised
225B900B / 225B900G	225	900	Black / Galvanised
225B1200B / 225B1200G	225	1200	Black / Galvanised
225B1500B / 225B1500G	225	1500	Black / Galvanised
275B00B / 275B600G	275	600	Black / Galvanised
275B750B / 275B750G	275	750	Black / Galvanised
275B900B / 275B900G	275	900	Black / Galvanised
275B1200B / 275B1200G	275	1200	Black / Galvanised
275B1500B / 275B1500G	275	1500	Black / Galvanised
325B600B / 325B600G	325	600	Black / Galvanised
325B750B / 325B750G	325	750	Black / Galvanised
325B900B / 325B900G	325	900	Black / Galvanised
325B1200B / 325B1200G	325	1200	Black / Galvanised
325B1500B / 325B1500G	325	1500	Black / Galvanised
375B600B / 375B600G	375	600	Black / Galvanised
375B750B / 375B750G	375	750	Black / Galvanised
375B900B / 375B900G	375	900	Black / Galvanised
375B1200B / 375B1200G	375	1200	Black / Galvanised
375B1500B / 375B1500G	375	1500	Black / Galvanised

Notes:

[†] All stair tread widths are manufactured to a tolerance of +0 / -2mm

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