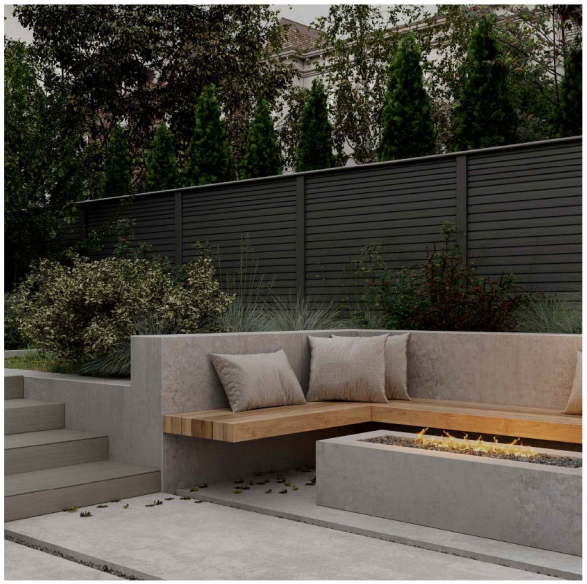
BMSTEEL

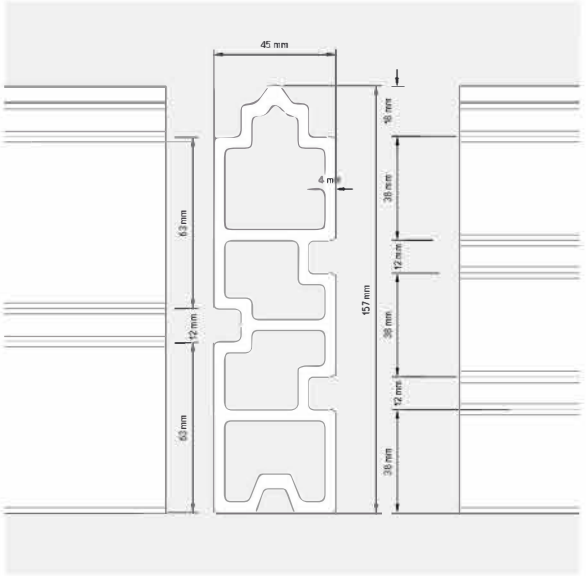
SPECIFICATION GUIDE

An innovative WPC profile which is a long-lasting, low maintenance alternative to timber. This new material can either be retro-fit between existing concrete fence posts or can be utilised in the fully composite system, meaning upgrading your outdoor space could not be easier. The fence board is dual-sided showing a 63mm batten on one side and a 38mm batten on the other, with a 12mm shadow line. The fence boards can be stacked on top of one another in various ways to achieve a design desired by the client. Our goal was to create a fencing range that was durable, beautiful and simple to install.



Clarity Fence Board

Length (mm)	1830
Width (mm)	45
Height (mm)	150
Weight	5.81kg
Material	Wood Plastic Composite
Finishes	3 x 38mm Batten / 2 x 63mm Batten



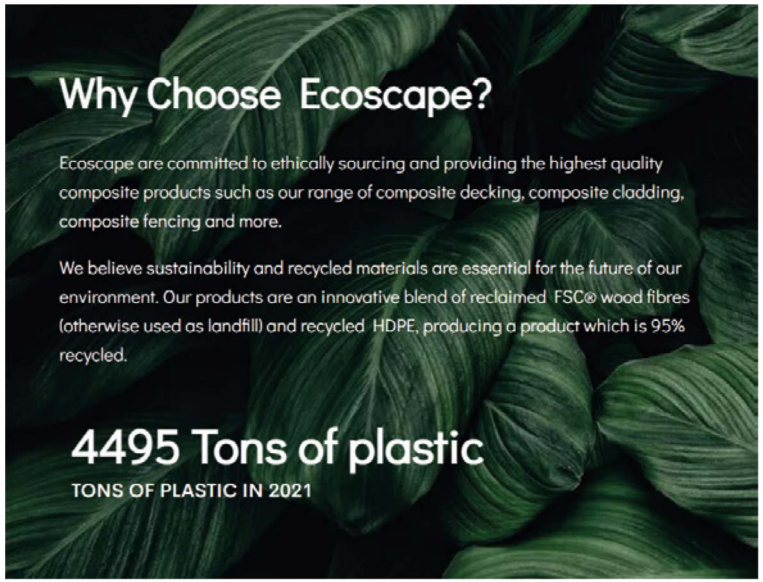
Charcoal

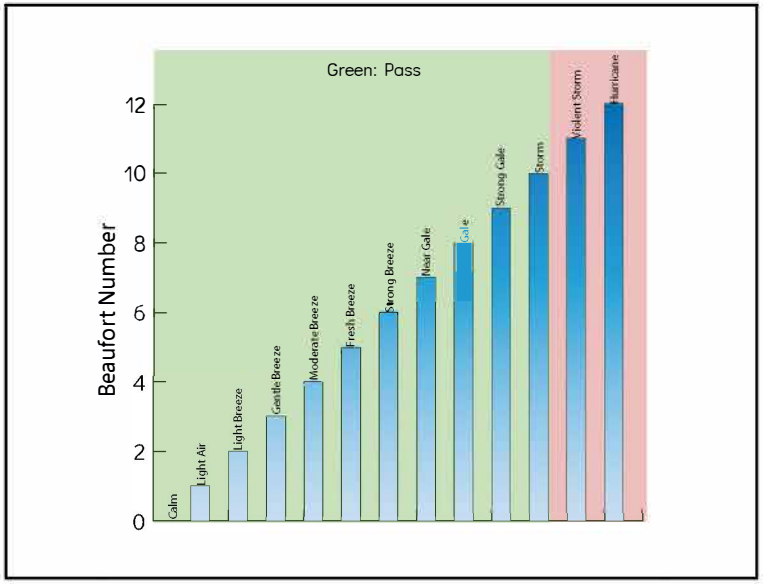
Graphite

Walnut

Clarity Decking Benefits

BM Steel Clarity Fencing has all the benefits of our Clarity decking, including low maintenance, and our 20 year warranty. Our unique system can be fitted with our composite posts, or simply be slotted between existing fence posts. With our extensive testing, including wind force test up to 63mph - you can be sure your fence will be an investment for years to come.





Sustainable Choice

BM Steel Wood Plastic Composite products are made from recycled plastic and wood fibre. Choosing Ecoscape UK ensures this waste material is diverted from landfill, and given a second life.

Great Benefits

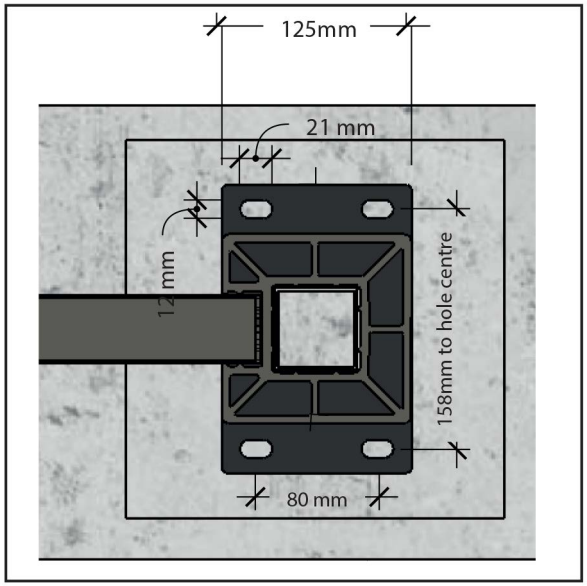
As with all our composites, our fence comes with a 20 year warranty, is low maintenance - requiring nothing more than regular washing to maintain look and performance. Our fence system has been independently tested against wind force, and for acoustic performance - providing a weighted sound reduction index of -28dB

Wind Force Test

The chart above shows the Beaufort Wind Scale. Ecoscape UK Clarity fencing has tested to force equivalent to a 10 on the Beaufort Scale - which would indicate a storm with winds of 55-63mph. The test showed the fence system remained fully intact, with no failure, evidence of disengagement of any component, nor visible cracks formed.

Working Specification - Fencing Systems

Our fencing system includes all the components you will need to create a beautiful, long lasting fence for almost any situation.
Drawings below show show some typical installation details for BM Steel fencing system, which can be installed onto hard standing using our fence base plates, or into soft ground, using steel inserts.



BM Steel Composite fence boards are 1830mm long, allowing maximum post centres of 1905mm, though the boards can be cut where smaller centres are required.
For further information, please see installation guides available on our website: www.bmsteel.co.uk

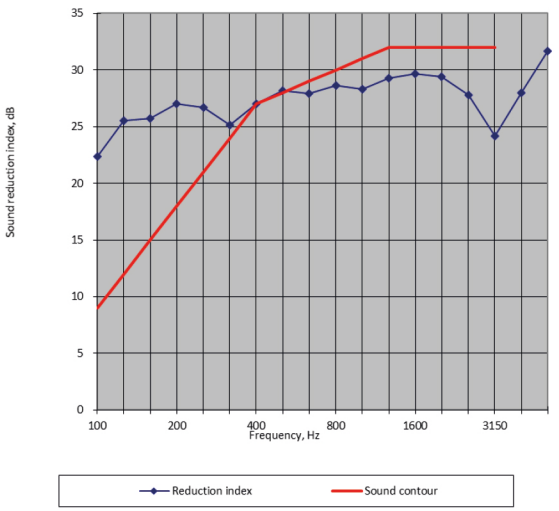
1: Fence Post Steel Insert
2: Aluminium Bottom Rail
3: Fence Board
4: Fence End Post
5: Fence Top Board
6: Fence Full Top Cap/Fence Post Capping Board
7: Fence Inter Post
8: Concrete Footing

Fence Posts can also be bolted onto hard standing, such as brick or concrete using our fence base plate (as shown above). For full product detail drawings, please visit www.bmsteel.co.uk

Specification Table

Property	Test Method	Test Result				Notes
Thickness, Width and Length	EN15534-1:2014, 6.6.2	Item	Length (mm)	Width (mm)	Thickness (mm)	
		Fence Board	1000	157.81	44.76	
		Inter Post	1000	123.82	125.09	
		Corner Post	1000	124.55	125.31	
		End Post	1000	124.35	125.07	
		Top Rail	1000	45.23	44.64	
		Top Capping Rail	1000	139.6	24.83	
		Top Cap	140.2	140.1	24.62	
Linear Mass	EN15534-1:2014, 6.6.2	Item	Linear Mass (g/m)			
		Fence Board	3081			
		Inter Post	3052			
		Corner Post	6271			
		End Post	6110			
		Top Raol	1309			
		Top Capping Rail	4232			
		Top Cap	556g/pcs			
Flexural	EN15534-1:2014, 7.3.2	Test Method	Condition	Test Result		
		Test Span: 600mm	Galvanised Steel Insert & Fence Post Base		Max. Pressure(N): >20000	(out of test range)
		Test Span: 500mm	Aluminium bottom rail		Max. Pressure(N): >6752 Displacement(mm): 17.2	
		Test Span 400mm	Fence Board		Max. Pressure(N): >8395 Displacement(mm): 10.77 Bending Modulus (MPa): 1237 Bending Strength(M-Pa): 15.8	
Resistance to Artifical Weathering	EN 15534		Charcoal	Graphite	Walnut	
		ΔE *=1	0.92	Not tested	1.3	
		ΔL*:	0.1	Not tested	1.15	
		Δa*	-0.05	Not tested	0.34	
		Δb*:	-0.92	Not tested	.51	
Moisture Under Cyclic Test Conditions	EN15534	Max. Pressure(N): >8395; Displacement (mm) 11.13; Bending modulus (MPa): 13.1; Decrease of bending modulus: 8.2%; Decrease of bending strength: 6.3%; Water absorption: 0.48%; Length Change: 0.08%; Width change: 0.18%; Thickness change: 0.2%				

Property	Test Method	Test Result	Notes
Reaction ro Fire	EN13501-1:2018	D-S_3-d0	
Wind Resistance Test	N/A The fencing system shall resist a maximum wind pressure of 520 Pa (as 10 Beaufort scale or 10 wind level)	There was no faillure, nor any evidence of disengagement of any component, nor visible cracks in any component	Pass
Acoustic Performance	ISO: 10140-2:2010	Rating according to ISO 717-1:2013 Weight Sound Reduction index Rw(C;Ctr)= -28dB	See Graph Below



Frequency (Hz)	Sound Reduction Index, Ri (dB)
100	22.2
125	25.4
160	25.6
200	26.9
250	26.6
315	25.1
400	26.9
500	28.1
630	27.8
800	28.5
1000	28.2
1250	29.1
1600	29.6
2000	29.3
2500	27.7
3150	24.1
4000	27.9
5000	31.5