

LEISURE CENTRE

Invicta & Lugano Technical Data Guide

A PREMIUM, TEXTURED BLOCK PAVING
COLLECTION.



brettlandscaping.co.uk



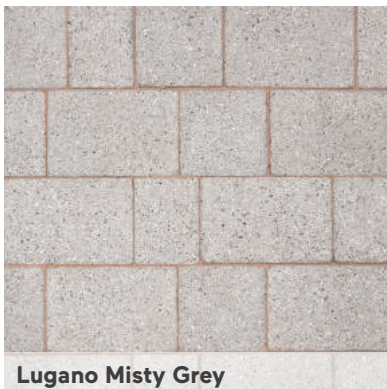


Invicta & Lugano

High performance, premium concrete block paving with striking granite effect finishes.



Colours



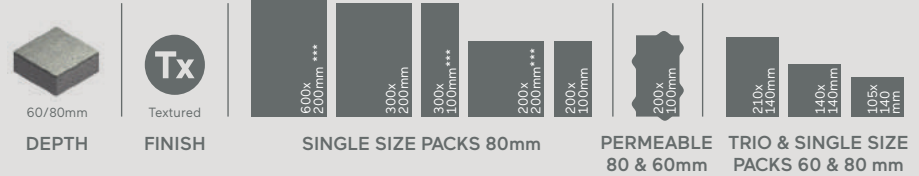
- FROST RESISTANT
- LIGHT* TRAFFIC
- HEAVY*** TRAFFIC
- PEDESTRIAN USE
- HIGH SLIP/SKID RESISTANCE
- AggTech® SURFACE LAYER***

*Light traffic suitable for Invicta TRIO 60mm and 600x200x80mm
 **80mm up to and including 300x200 can be used in a flexible heavy duty application.
 ***Applies to Invicta only.



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Standards and Performance

Product Type	Precast Concrete Paving Blocks/Flags
Manufacturing Standard	BS EN 1338 : 2003 / BS EN 1339 : 2003
Design Standards	BS 7533-101:2021 ; BS 7533-13:2009
Installation Standards	BS 7533-3:2005 +A1:2009 ; BS 7533-4:2006
Application	Domestic and Commercial use; hardstanding for vehicular & pedestrian pavements including footpaths, cycle tracks, driveways, adoptable highways, commercial pavements, roof top and balcony applications etc. (Please see www.brettlandscaping.co.uk for further guidance on applications suitable for paving plan sizes.)
Strength	Characteristic tensile splitting strength ≥ 3.6 Mpa; Failing load ≥ 250 N/mm
Strength 600x200x80mm	Characteristic bending strength ≥ 5.0 Mpa / Characteristic breaking load > 4.5 KN
Abrasion Resistance	≤ 23 mm - Determined by Wide Wheel Abrasion Test
Durability	Class 3 $\leq 1,0$ kg/m ² with no individual result $\leq 1,5$ kg/m ²
Slip/Skid Resistance	Unpolished Slip Resistance Value ≥ 55 - Potential for slip - Low
Slip/Skid Resistance 600x200x80	≥ 55 - Potential for slip - Low
Reaction to Fire	Class A1 when used for internal flooring
External Reaction to Fire	Deemed to satisfy
Emission of asbestos	No content
Thermal Conductivity	1.2 W/(mK)

Sustainability

BES 6001	Responsible Sourcing of Concrete Products (Rating: Excellent)
Energy Use	100% renewable electricity
Recyclable	100% of this product can be recycled. Invicta contains 15% recycled content in backing mix.
Manufacturing	Produced in the UK using responsibly sourced materials
Waste Wood + Plastic	100% recyclable
Carbon Footprint &	Brett Landscaping and Building Products have contributed to the members' of Interpave, a product group of British Precast, Environmental Product Declaration for Paving Products (Blocks, Slabs, Channels and Kerbs), in accordance to BS EN 15804:2012-4+A1 2013, independently verified by a third party according to ISO 14025:2011-10. We are dedicated to creating a more sustainable future, to view our sustainable development goals and our industry leading EPDs, visit www.brettlandscaping.co.uk/professional/sustainability/
BREEAM	Concrete Block Paving 60mm: A rating, as per the BRE Green Guide, 4th Edition 2009, A+ rating can be achieved when used in conjunction with a prepared recycled sub-base. Concrete Block Paving 80mm: B rating, as per the BRE Green Guide, 4th Edition 2009, A rating can be achieved when used in conjunction with a prepared recycled sub-base.



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Finishes

Invicta: Beautifully Engineered, the Brett Invicta range uses a specially formulated surface layer, **AggTech®**, which has been developed to deliver high performance with a stunning, individual aesthetic. Invicta has been developed to perform, using only the highest-quality materials. You'll appreciate its distinctive sparkle, and the colours in its range have been specifically developed to complement each other, enabling a flexibility of design like nothing else.

Lugano: Lugano showcases the beauty of natural granite and is available in three refreshing colours. Whether used individually or combined, they form stylish & durable urban environments, while Rosa adds a touch of colour into the design. Lugano's hard-wearing, textured surface provides a high level of slip resistance, making it ideal for applications where the aesthetic of natural granite is required but at a more economical price.

Certification

BES 6001	Responsible Sourcing of Concrete Products
ISO 9001	Quality Management.
ISO 14001	Environmental Management.
ISO 45001	Occupational Health and Safety Management.
CE Marking	Contact us for Declaration of Performance (DOP) data.
UKCA Marking	Contact us for Declaration of Performance (DOP) data.



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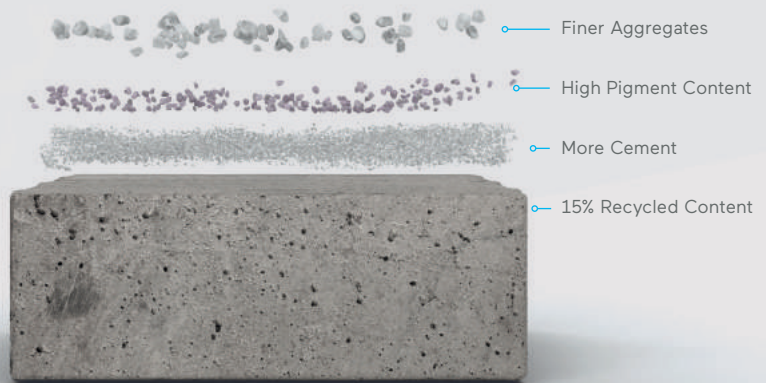
AggTech® SURFACE LAYER***



Tough and beautiful for longer

To ensure its long-life structural performance, Invicta's **AggTech®** surface layer includes more cement, a higher concentration of pigment for richer, more defined tones, and a finer cut of premium, globally sourced, specialist aggregates. Formed in unison to the coarse, robust sub-layer, results in an extremely strong and secure bond for the life of the paving.

Its surface layer features a minimal 3mm chamfer to the top edge of the block and is extremely hardwearing enabling it to shrug-off extreme weather and retain its vivid, brighter colours.



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Invicta Flow & Lugano Flow

A sustainable, permeable concrete block paving developed with striking, granite aesthetics.



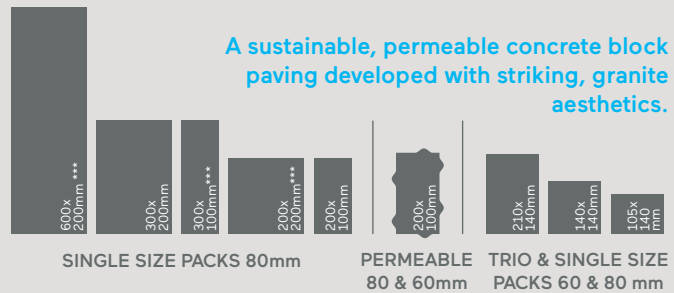
60/80mm

DEPTH

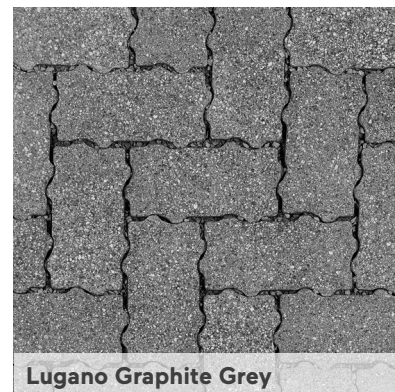
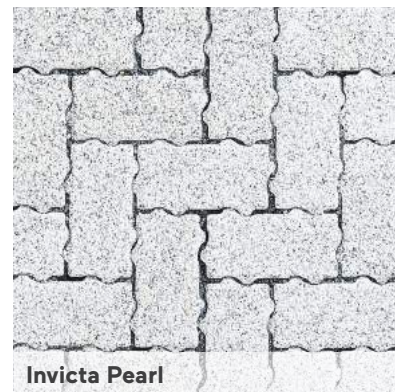


Textured

FINISH



Colours



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Invicta Flow & Lugano Flow



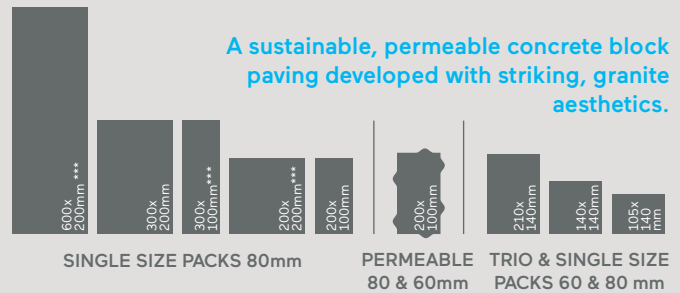
60/80mm

DEPTH



Textured

FINISH



We are industry leaders in the design and construction of sustainable, permeable block paving solutions.

Our attractive range of permeable paving incorporate a unique male and female interlocking nib design which maximises the structural integrity, whilst allowing surface water to drain through the joints at the surface of the pavement. This design ensures superior elastic modulus, enabling the blocks to securely interlock under heavy traffic loads while allowing efficient conveyance of surface water through the joints. The water is directed into the open graded subbase below, where it can be effectively managed, either infiltrating back into the ground or directed towards a sewer or other Sustainable Drainage Systems (SuDS).

This makes our Flow paving ranges an ideal solution for trafficable pavement which includes driveways, patios and pavements through to car parking areas, adoptable carriageways and heavy duty commercial applications.

Industry Associations

Through our association with industry bodies which include Mineral Products Association Precast (MPA), British Standards Institute (BSI), Builders Merchants Federation (BMF) and the Association of SuDS Authorities (ASA), Brett have become a market leader and trusted advisor for the design and site support in the construction of Concrete Block Permeable Pavements.

Our Flow products support the industry recognised pillars of SuDS with concrete block permeable pavements being able to provide the whole source control solution to fit seamlessly into the surface water management train.

Do you need help designing cost-effective permeable pavements for SuDS applications? Use PermCalc.

Our experience and technical expertise has helped us be a trusted advisor to Local Authorities, Water Utility Companies, designers and contractors alike as we provide onsite support and maintenance advice to ensure these systems work as expected for the lifetime of the pavement. Our unique design tool PermCalc uses the methodology set out within the BS 7533 suite of standards to calculate both the structural and hydraulic requirements for your permeable pavement. Visit PermCalc at brettlandscaping.co.uk/professional/resources/permcalc/.

Explore our latest case studies.



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Technical Information

Invicta Block Paving										
Depth (mm)	Size (mm)	Colours	No. Per Pack	No. Per m ²	m ² Per Pack	Pack Weight (kg)	Pack Type	Per M2 (kg)		
60	200 x 100	Pearl Moonstone Onyx Citrine	432	50	8.46	1300	Pallet	18.92 to 19.03		
	210 x 140		288	34		1200				
	300 x 100		288	33.3		1300				
60 TRIO Pack includes all 3 sizes	105 x 140		108	68	9.53	1410		Pallet	14.19 to 14.27	
	140 x 140		162	51						
	210 x 140		162	34						
80	200 x 100		336	50	6.72	1327			Pallet	18.92 to 19.03
	200 x 200		168	25		1327				
	300 x 100		224	33.33		1327				
	300 x 200	112	16.67	1328						
	600 x 200	56	8.33	1328						

Lugano Block Paving									
Depth (mm)	Size (mm)	Colours	No. Per Pack	No. Per m ²	m ² Per Pack	Pack Weight (kg)	Pack Type	Per M2 (kg)	
60 TRIO Pack includes all 3 sizes (Poole)	105 x 140	Graphite Grey Misty Grey Rosa	108	68	8.47	1139	Pallet	16.63	
	140 x 140		108	51					
	210 x 140		162	34					
60 TRIO Pack includes all 3 sizes (Cliffe)	105 x 140		108	68	9.53	1410		Pallet	14.31
	140 x 140		162	51					
	210 x 140		162	34					
80 TRIO Pack includes all 3 sizes.	105 x 140		84	68	7.41	1460		Pallet	19.08
	140 x 140		126	51					
	210 x 140		126	34					
80	105 x 140		420	68	6.17	1172		Pallet	19.08 to 25.13
	140 x 140		336	51					
	210 x 140		224	34	6.59	1250			
	200 x 100	336	50						
	300 x 200	112	16.66	6.72			1328		
600 x 200	56	8.33	1328						

Permeable 'Flow' Block Paving: Invicta Flow & Lugano Flow								
Depth (mm)	Size (mm)	Colours	No. Per Pack	No. Per m ²	m ² Per Pack	Pack Weight (kg)	Pack Type	Per M2 (kg)
60 Invicta	200 x 100	Pearl Moonstone Onyx Citrine	288	50	8.64	1300	Pallet	13.64 to 13.72
80 Invicta			336		6.72	1266		18.18 to 18.29
60 Lugano			432		8.64	1300		14.31
80 Lugano (Cliffe)		Graphite Grey Misty Grey Rosa	336		6.72	1266		19.08
80 Lugano (Poole)			308		6.16	1102		Void

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Possibilities, simply inspired.

Our commitment to quality and innovation has made us a trusted name in the industry. We work with professionals across multiple commercial sectors, providing a wide range of paving materials from concrete block paving, porcelain paving and concrete flags to containment kerbs and bespoke products.

Continue to be inspired. Get social and experience the possibilities of Brett products.

