



INGENIOUS

KELLEN

BRAVE LANDSCAPES – STREETS AHEAD





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Featured: Peel Park Campus,
University of Salford, Manchester

Materials Used
Kellen Lavaro 200x600x80mm Wit, Zwart, Grijs and Rood
paving and Kellen Lavaro Wit 701 steps.

BRAVE LANDSCAPES STREETS AHEAD

Offering a creative and flexible alternative to traditional hard landscaping products, Kellen is Hardscape's innovative, modular concrete paving range. Featuring a natural stone aggregate top layer and available in a variety of textures, finishes and colours, the range surpasses the creative boundaries and technical specifications of standard concrete paving systems. What's more, it does all this at a sensible price.

The Kellen paving range is also manufactured in plank and large plan sizes. This scope enables the rich detail that designers seek in hard paving projects and helps regeneration schemes to reach 'streets ahead status' through the creation of remarkable hard landscapes.

A high quality, European product, Kellen's versatility and functionality work across the full spectrum of design challenges. And, with its strong eco-credentials, Kellen fits with Hardscape's commitment to deliver sustainable materials that meet current and future demands.



GREEN CREDENTIALS

Sustainable

Kellen comes with substantial green credentials. Its factories in Holland have numerous environmental systems in place that save energy and reduce carbon emissions. The manufacturing process, which is ISO 14001 certified, uses recycled water and minimises the output of dust to the atmosphere. Raw materials are transported by water for up to 90% of their journey using Kellen's own quay and all products carry the CE marking. As standard, at least 15% of the raw materials used in the backing layer are formed from recycled matter.

Cycle for Concrete

But Kellen does not stop there. The development of Cycle for Concrete (C4C) brings the recycled concrete model to a whole new level. Taking unwanted concrete paving from local authorities, Kellen extracts the high quality raw material to produce new concrete products. When specified at a C4C standard, Hardscape can supply Kellen with a recycled content of up to 75%.

For further details on the C4C process, please consult a Hardscape sales representative.

	Blocks (Setts & Slabs)		Blocks (Setts & Slabs)	
Rating				
Prepared Sub-base	B	A	B	A
Recycled Sub-base	A	A+	A	A+
No Sub-base				
Element Number				
Prepared Sub-base	822120005	830120005	822120005	830120005
Recycled Sub-base	822120037	830120025	822120037	830120025
No Sub-base				
Thickness (mm)	80	60	80	60



SETTING NEW STANDARDS

Quality

All Kellen products conform to BS EN standards 1338, 1339 and 1340 with high ratings for size tolerance, strength, resistance to freeze-thaw damage and wear. In addition, every product bears the CE marking.

Laying

Kellen products are traditionally laid by hand or, when size dictates, a handheld vacuum lifter can be used. Laying on sand as a flexible paving system provides a more cost-effective option than cementitious bedding mortars. Hardscape has also developed equipment that enables the product to be machine-laid if required.

To achieve a practical alternative to natural stone products, our recommendation is to complete the final laying and finish with a kiln-dried silver sand.

Featured: The Quadrant: MK, Network Rail HQ, Milton Keynes

Materials Used

Kellen Breccia 80/300x240/300x60/70/80mm Tagenta B, C, D & E setts and Kellen Liscio 300x300x60mm Tagenta C setts.

BRECCIA

100% NATURAL STONE COATING

Breccia is an exclusive concrete paver featuring a top layer of carefully selected stone aggregates free from sand and pigments.

This top layer is produced in four grain sizes of aggregate, making it extremely durable and less prone to general fading. Its natural, water-etched appearance means Breccia is particularly suited to prestigious projects.

Key Features

- 100% natural stone surface
- Four grain sizes of aggregate to create a 'seamless' surface
- No colour pigments
- Etched with high water pressure.



COLOURS



BRECCIA DESIGN RANGE

Series denotes the width x length x thickness of the products.

Series 50	Series 80	Series 110	Series 200	Series 300	Series 500
50x200x80mm	80x240x80mm	110x165x80mm	200x200x62mm	300x300x62mm	500x500x80mm
50x400x100mm	79x237x70mm	110x165x100mm	200x200x80mm	300x300x80mm	500x500x100mm
Series 60	Series 100	110x330x80mm	200x200x100mm	300x300x100mm	500x700x100mm
60x240x80mm	100x100x80mm	110x330x100mm	200x300x62mm	300x600x80mm	500x1000x100mm
Series 69	100x200x80mm	Series 125	200x300x80mm	300x600x100mm	Series 600
69x210x80mm	100x300x100mm	125x250x80mm	200x300x100mm	300x900x100mm	600x600x80mm
Series 70	100x300x120mm	Series 150	200x400x80mm	Series 400	600x900x100mm
70x600x100mm	Series 105	150x150x80mm	200x400x100mm	400x400x80mm	Series 1000
Series 75	105x105x80mm	150x200x80mm	200x600x80mm		1000x1000x120mm
75x300x80mm	105x210x80mm**	150x300x62mm	200x600x100mm		1000x1000x145mm
	105x315x80mm	150x300x80mm	Series 210		
	105x420x100mm	150x300x100mm	210x210x62mm		
	105x210x100mm**	150x400x80mm	210x210x80mm		
		150x600x100mm			
		145x295x80mm			

Products marked with ** are also available in the Permeable H₂O Paver range.



Featured: Middlesbrough College and STEM Building, Middlehaven

Materials Used

Kellen Breccia 200x200x80mm Tagenta A, B, C & E setts and Red Crystalpave Glass setts.

CITY CAMPUS

CITY OF GLASGOW COLLEGE, GLASGOW

Hardscape supported the landscape architects, Rankinfraser, in realising their design to complement the new £162m City Campus at the City of Glasgow College. As part of the college's wider 'super campus' project, the scheme was developed to create an open and inspiring learning space for more than 40,000 students.

The unusual nature of the site posed a design challenge for Rankinfraser. To overcome the shift in level between St Mungo Avenue and Cathedral Street, the landscape architects created a terraced public area, characterised by undulating steps that not only provide access to the main entrance but also offer opportunities to sit and socialise.

Given the striking style of the college building, the surrounding landscape had to hold its own

under the towering facade. Hardscape supplied an architectural blend of Kellen materials in a selection of colours, sizes and finishes. The use of Breccia and Liscio in varying lengths, together with their subtle tonal changes, results in a truly unique outdoor space. The landscaping scheme successfully echoes the building's architectural design.



Materials Used

Kellen Breccia Bianco 110x165/330/80mm, Breccia Tagenta B&E 110x165/330x80mm, Liscio Bianco 110x165x80mm paving, Lavarò Wit 105x210x80mm H₂O permeable paving, Lavarò Wit 701 kerbs.

ASHINGTON LEISURE CENTRE

ASHINGTON, NORTHUMBERLAND

Forming a key component of the town's strategic regeneration, Ashington Leisure Centre won a prestigious RIBA North East Award in 2016. Hardscape collaborated with Northumberland County Council, One Associates and Rainton Construction to deliver the seminal project.

Opened in January 2016, the flagship leisure facility is a regional centre of excellence for sport and includes indoor cricket nets, a 25-metre swimming pool, exercise studios and a six-court sports hall.

Hardscape provided Kellen Breccia Tagenta A, B and E paving in uniform plank sizes to create a blended linear effect. Bespoke Crystal Black Granite benches were produced by our in-house design team in line with the landscape architect's original concept. The beautifully crafted benches create a focal point at the entrance to the building.

As only the first phase of a much wider regeneration scheme for the town, Cllr Dave Ledger, Arch Chair and Deputy Leader of Northumberland County Council, observed that the new leisure centre is 'setting the bar extremely high'.

www.hardscape.co.uk



Ashington
Leisure
Centre

Materials Used

Kellen Breccia 150x300x100mm Tagenta A, B & E paving with bespoke Crystal Black Granite benches.

RIVERLIGHT BATTERSEA, LONDON

The Riverlight development saw the transformation of a waterfront space in Battersea. As part of a £200m mixed-use scheme, Hardscape worked alongside the landscape architects, Gillespies, to breathe new life into the once rundown industrial area.

To address the dual vision for the location, one that would grant public access to the Thames while also creating a relaxed atmosphere for residents, Hardscape aimed to develop a peaceful space through the use of modern landscaping techniques and materials.

Kellen Breccia was chosen for paving due to its durability and decorative nature. Silver Grey Granite kerbs, bollards and steps deliver a refined aesthetic and in-house fabricated Granite boulders provide a spot to sit and enjoy the environment.

The completed scheme has produced 802 new homes, 250 jobs, 45 apprenticeships and it has considerably improved local infrastructure. Situated near top restaurants, museums and royal parks, Riverlight is now a more attractive place to live, work and visit. The development offers a breathing space for residents and passersby in the heart of the capital.



Materials Used
Kellen Breccia 300x900x100mm Giallo and Bianco paving.

LAVARO

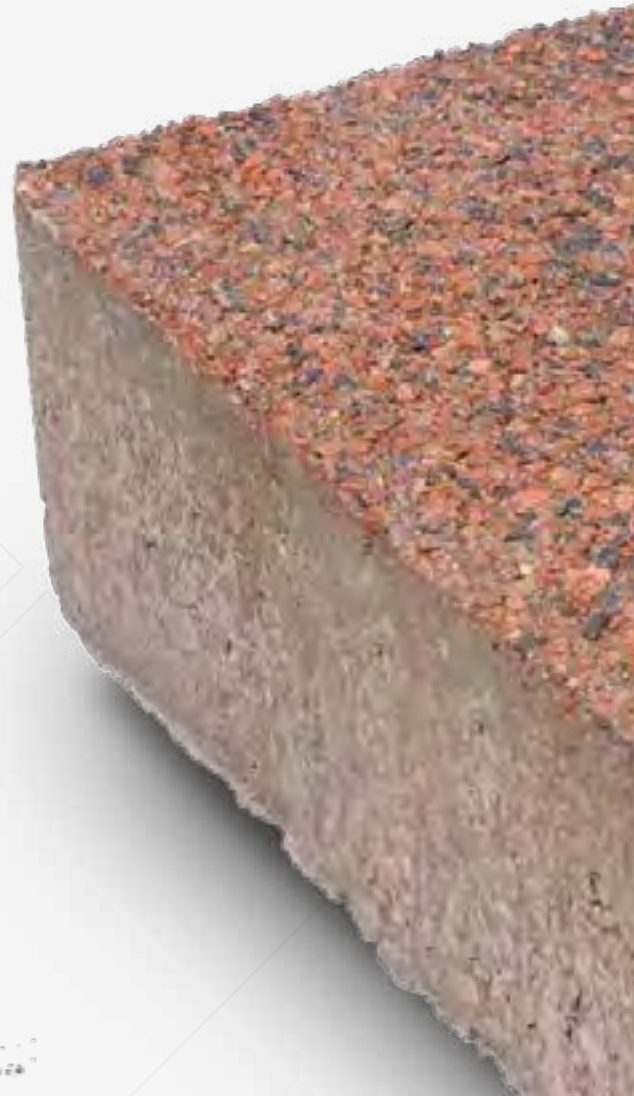
70% NATURAL STONE COATING

Lavaro is an economical, water-etched paving product supplied in a range of pigmented colours.

The natural stone aggregates are produced in a single grain size and form approximately 70% of the top layer. A small amount of UV pigment is then used to enhance the colour of the remaining 30%. Available in a variety of sizes and colours, Lavaro is easy to incorporate into creative designs, making it a good choice for public spaces where durability and appearance are a priority.

Key Features

- 70% natural stone surface
- Single aggregate grain size
- Etched with high water pressure.



COLOURS



LAVARO DESIGN RANGE

Series denotes the width x length x thickness of the products.

Series 50	Series 80	Series 110	Series 200	Series 300	Series 500
50x200x80mm	80x240x80mm	110x165x80mm	200x200x62mm	300x300x62mm	500x500x80mm
50x400x100mm	79x237x70mm	110x165x100mm	200x200x80mm	300x300x80mm	500x500x100mm
Series 60	Series 100	110x330x80mm	200x200x100mm	300x300x100mm	500x700x100mm
60x240x80mm	100x100x80mm	110x330x100mm	200x300x62mm	300x600x80mm	500x1000x100mm
Series 69	100x200x80mm	Series 125	200x300x80mm	300x600x100mm	Series 600
69x210x80mm	100x300x100mm	125x250x80mm	200x300x100mm	300x900x100mm	600x600x80mm
Series 70	100x300x120mm	Series 150	200x400x80mm	Series 400	600x900x100mm
70x600x100mm	Series 105	150x150x80mm	200x400x100mm	400x400x80mm	Series 1000
Series 75	105x105x80mm	150x200x80mm	200x600x80mm		1000x1000x120mm
75x300x80mm	105x210x80mm**	150x300x62mm	200x600x100mm		1000x1000x145mm
	105x315x80mm	150x300x80mm	Series 210		
	105x420x100mm	150x300x100mm	210x210x62mm		
	105x210x100mm**	150x400x80mm	210x210x80mm		
		150x600x100mm			
		145x295x80mm			

Products marked with ** are also available in the Permeable H₂O Paver range.



Featured: Peel Park Campus, University of Salford, Manchester
Materials Used
 Kellen Lavaro 200x600x80mm Wit, Zwart, Grijs and Rood paving and Kellen Lavaro Wit 701 steps.

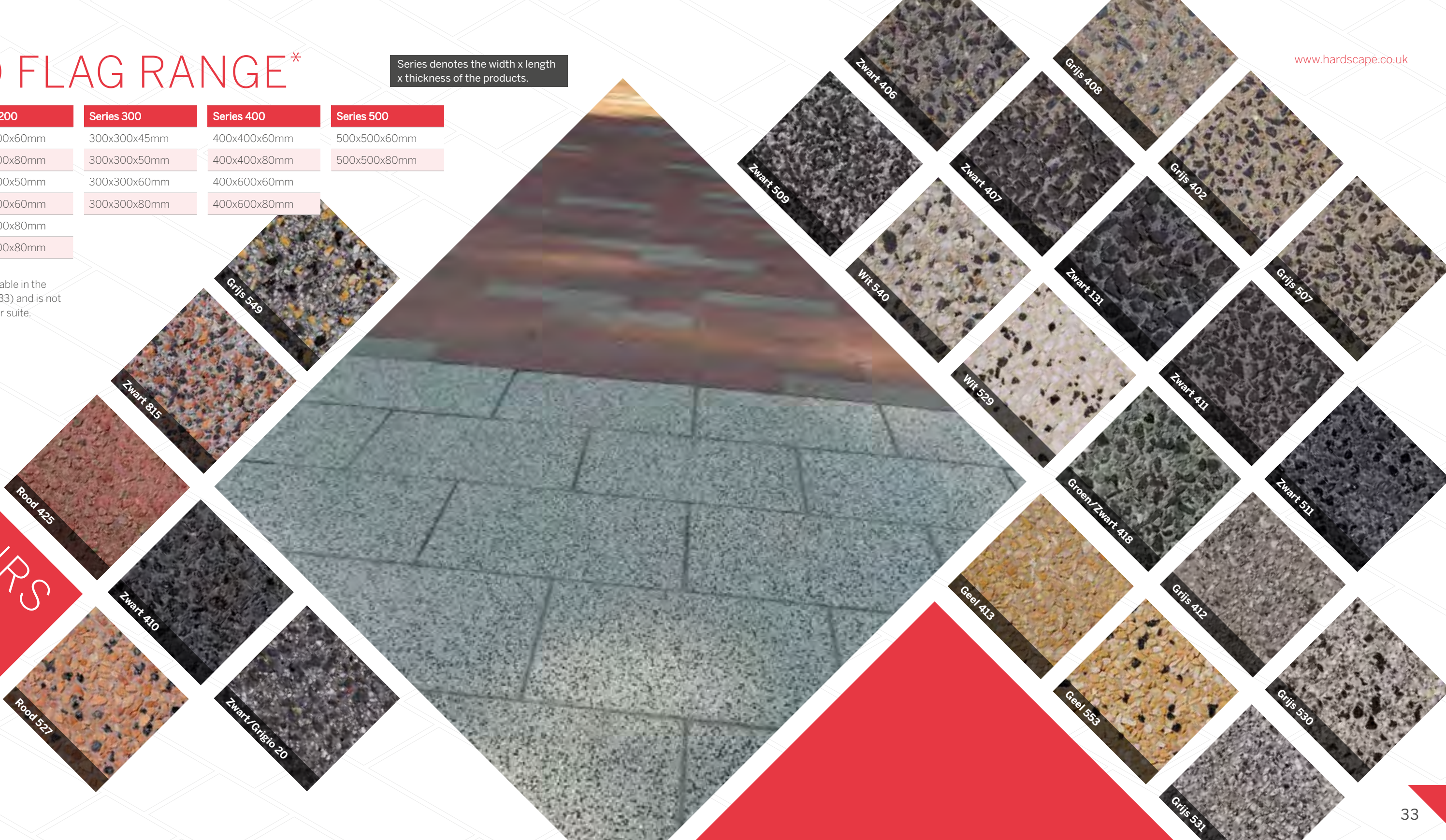
LAVARO FLAG RANGE*

Series denotes the width x length x thickness of the products.

Series 150	Series 200	Series 300	Series 400	Series 500
150x300x45mm	200x200x60mm	300x300x45mm	400x400x60mm	500x500x60mm
150x300x50mm	200x200x80mm	300x300x50mm	400x400x80mm	500x500x80mm
150x300x60mm	200x400x50mm	300x300x60mm	400x600x60mm	
150x300x80mm	200x400x60mm	300x300x80mm	400x600x80mm	
	200x400x80mm			
	200x500x80mm			

*The Lavarò Flag range is only available in the colours shown here (pages 32 and 33) and is not supplied in the Lavarò Design colour suite.

COLOURS



FLEMINGATE

BEVERLEY, EAST YORKSHIRE

A Beverley Town Council regeneration scheme brought about the conversion of a derelict industrial site into a modern shopping environment. Hardscape provided technical guidance to Vector Design Concepts at the initial stages of the £120m project and subsequently supplied the hard landscaping materials.

Spanning 16 acres, this sophisticated retail development was designed to harmonise with the existing urban characteristics of the town centre.

The selection of materials and colours supplied by Hardscape brings a pleasing aesthetic to the paving that surrounds the shopping quarter. Using Kellen Lavaró in a mix of non-traditional colours such as Geel and Geel/Bruin, the warm beige and deep orange tones complement the traditional brick walls of the development's buildings.

Tower Sandstone was also specified for its durability. Able to withstand freezing temperatures and years of exposure, it is perfect for outdoor spaces with a high volume of pedestrian traffic. Neland Dutch Clay paving in Padova and Newgrange Silver Granite Concrete add interest and help to define the central walkway.

The shopping and leisure facility now accommodates 16 shops, a hotel and a new campus for East Riding College. In total, 700 jobs were created through the regeneration scheme, injecting life back into this small Yorkshire town.



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Materials Used

Kellen Breccia 200x200/400x80mm Rosso, Kellen Lavarò 300x600x80mm Grijs, Kellen Lavarò 200x200/400x80mm Geel and Geel/Bruin, Kellen Lavarò 200x300x80mm Geel/Bruin and Kellen Lavarò 200x600x80mm Grijs paving.

KIRKBY PUBLIC REALM KNOWSLEY, MERSEYSIDE

Reflecting the strong community spirit amongst Kirkby locals, a multimillion pound regeneration programme has revived the heart of this Merseyside town. The project team of Knowsley Metropolitan Borough Council, Broadway Malyan (architects), St. Modwen (regeneration specialists) and Hardscape worked together to achieve the vision for a town centre that would enrich the experiences of its businesses and residents alike.

In what was a true community initiative, locals were encouraged to contribute ideas, memories and suggestions that would help to shape the final design for the scheme. The primary objective of the work was to create a greater sense of unity within the town and four key areas were identified for connection. While Hardscape played an integral role in the overall project, it is the Civic Square that demonstrates the impact of our work most vividly.

Covering approximately 13,000m², the Civic Square is a popular location for community events. Hardscape was tasked with developing an inspiring space that would balance well with the striking public artworks that are a feature of the new town centre. Kellen Lavaró's natural stone appearance, cost-effectiveness and durable properties made it the perfect choice for this

busy and expansive area. Presented in a blend of Salmon and Paars paving tiles, the warm pink and purple tones contrast elegantly with the town's colourful artworks. To complement the scheme, Hardscape's bespoke Artscape process was used to sandblast the welcome sign for Kirkby Market.

The regeneration of Kirkby was inspired by what makes the town unique and by its strong sense of community spirit. The project has successfully attracted new businesses and visitors to the area, reinvigorating the Merseyside town.



Materials Used

Kellen Lavarø 150x300x62mm Salmon* and Paars paving.

*Salmon is a bespoke Kaleido top surface blend.

LISCIO

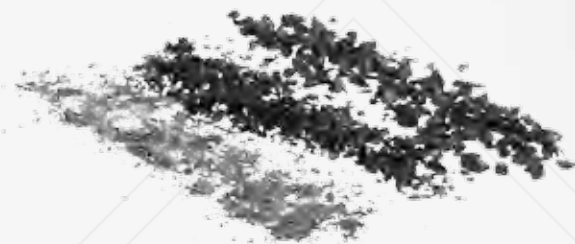
100% NATURAL STONE COATING

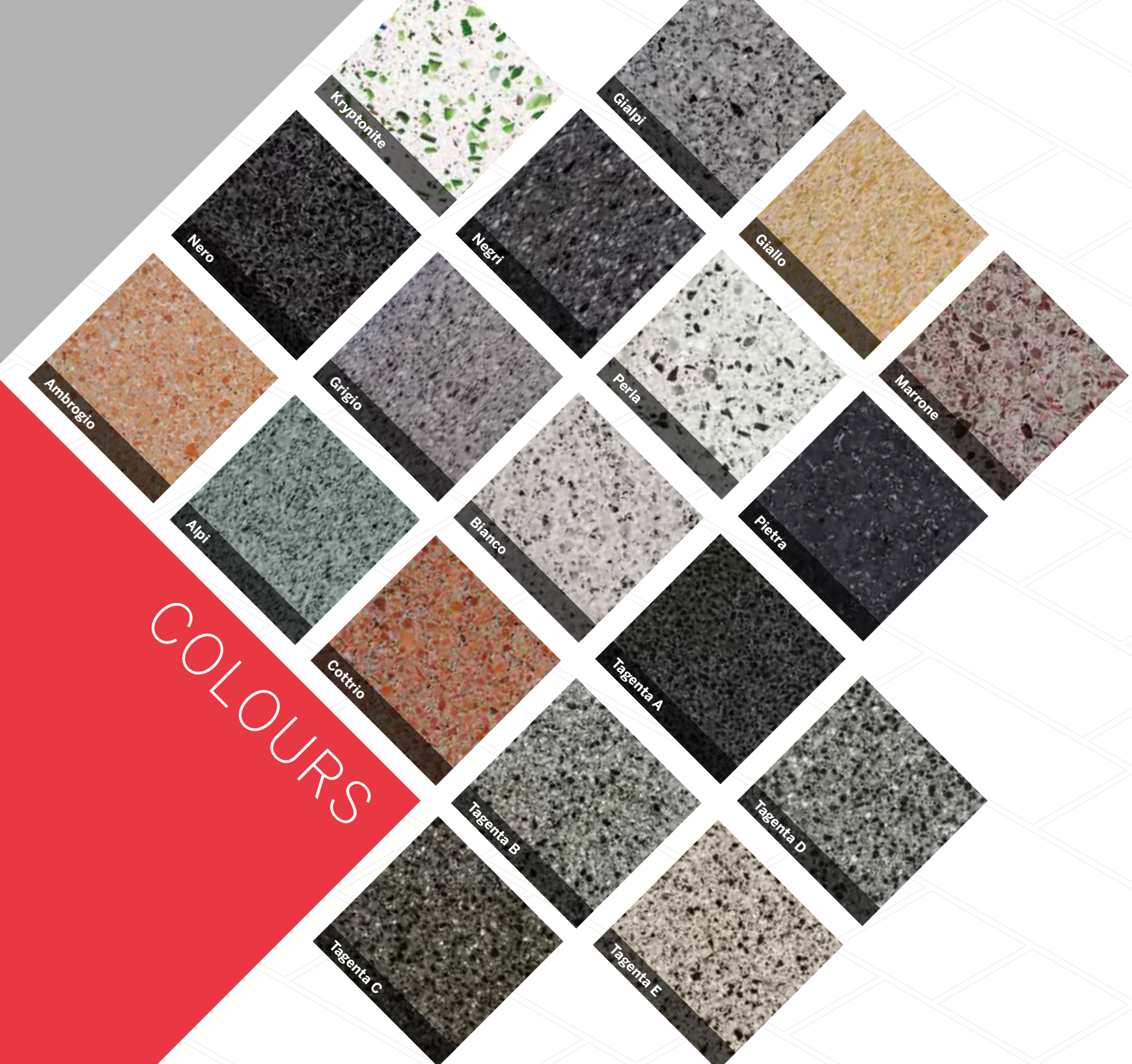
With a premium ground finish, Liscio concrete pavers offer performance and style.

A slip-resistant, flat surface makes Liscio ideal for use in any commercial area. Its unique appearance is very impressive when specified in extra large sizes and, when combined with other finishes like Breccia, Lavarò or Sferio, it is particularly effective in highlighting design features.

Key Features

- 100% natural stone surface
- Four aggregate grain sizes
- No colour pigments
- Ground finish.



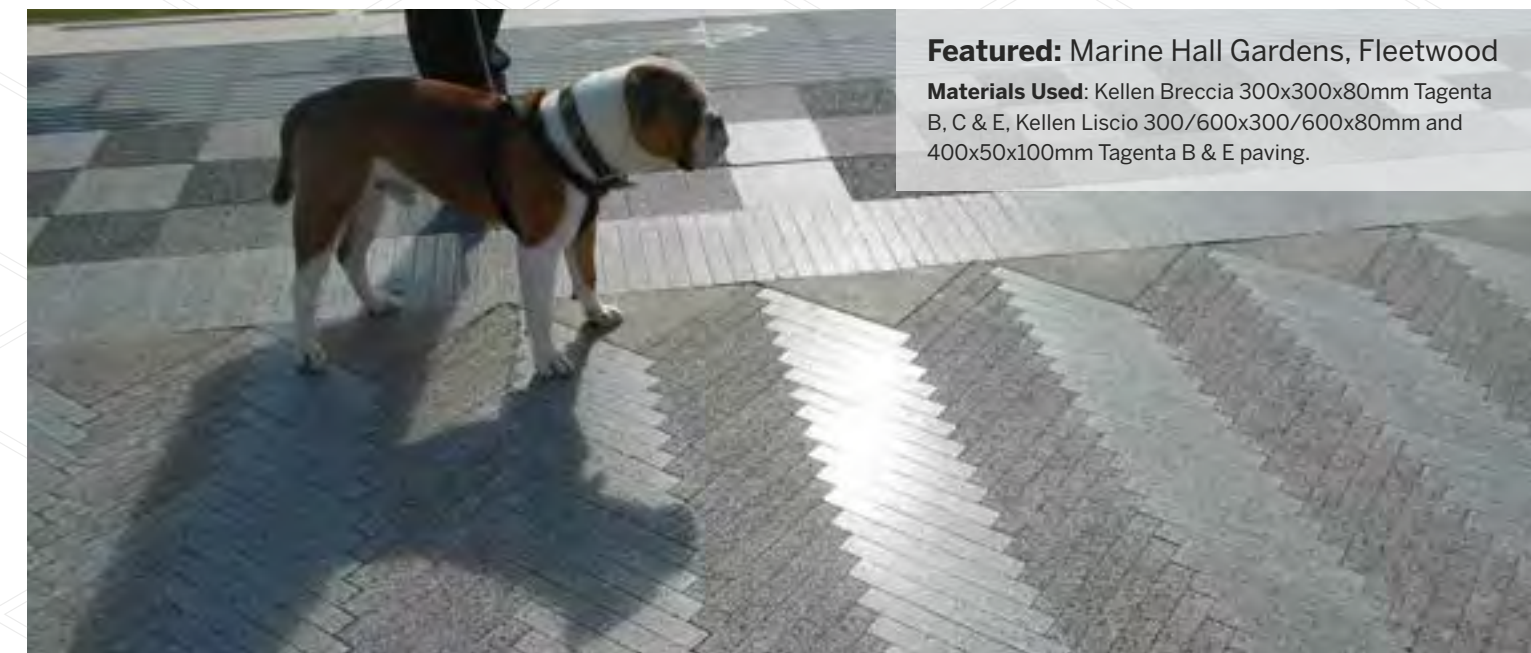


COLOURS

LISCIO DESIGN RANGE

Series denotes the width x length x thickness of the products.

Series 50	Series 80	Series 110	Series 200	Series 300	Series 500
50x200x80mm	80x240x80mm	110x165x80mm	200x200x62mm	300x300x62mm	500x500x80mm
50x400x100mm	79x237x70mm	110x165x100mm	200x200x80mm	300x300x80mm	500x500x100mm
Series 60	Series 100	110x330x80mm	200x200x100mm	300x300x100mm	500x700x100mm
60x240x80mm	100x100x80mm	110x330x100mm	200x300x62mm	300x600x80mm	500x1000x100mm
Series 69	100x200x80mm	Series 125	200x300x80mm	300x600x100mm	Series 600
69x210x80mm	100x300x100mm	125x250x80mm	200x300x100mm	300x900x100mm	600x600x80mm
Series 70	100x300x120mm	Series 150	200x400x80mm	Series 400	600x900x100mm
70x600x100mm	Series 105	150x150x80mm	200x400x100mm	400x400x80mm	Series 1000
Series 75	105x105x80mm	150x200x80mm	200x600x80mm	Series 210	1000x1000x120mm
75x300x80mm	105x210x80mm	150x300x62mm	200x600x100mm		1000x1000x145mm
	105x315x80mm	150x300x80mm			
	105x420x100mm	150x300x100mm	210x210x62mm		
	105x210x100mm	150x400x80mm	210x210x80mm		
		150x600x100mm			
		145x295x80mm			



Featured: Marine Hall Gardens, Fleetwood
Materials Used: Kellen Breccia 300x300x80mm Tagenta B, C & E, Kellen Liscio 300/600x300/600x80mm and 400x50x100mm Tagenta B & E paving.

CUNARD BUILDING

BRUNSWICK STREET, LIVERPOOL

July 2016 marked the centenary celebrations of Liverpool's famous Cunard Building, one of the city's Three Graces and originally constructed as the headquarters of the Cunard Line. In addition to numerous festivities, Liverpool City Council commissioned the creation of a unique centrepiece for the newly completed public realm in front of the building. Designed by BCA Landscape and Smiling Wolf, Hardscape was engaged to assist in bringing their ambitious plan to life.

The design response takes the form of an epic granite seat, 50 metres long and running the full length of the building. The seat is inset with a bespoke artwork, entitled 'The Voyage'. Inspired by the history and legacy of the company, defining moments from 1839 to the present day are represented in bronze illustration and typography across the installation. These are created using Hardscape's innovative Artscape techniques of production and implementation.

A mix of hard landscaping materials was carefully selected to offer a suitable backdrop for the work. Kellen Liscio and Breccia were used for paving, along with Lavarro edgings and Breccia triangles. The subtle tones and sequential laying formation create an ordered and calm space that is respectful of this historic setting.

Images courtesy of Karl Glenn (BCA Landscape).

www.hardscape.co.uk

Materials Used
Kellen Liscio and Kellen Breccia 50x200/400x80/100mm Tagenta E paving (Breccia 200mm with 3mm chamfer), Kellen Lavaró 120x1000x250mm Wit flush edgings and Kellen Breccia 400/200x400/200x566/285x80mm Tagenta E triangles.

PERLANO

RAW NATURAL STONE AND MOTHER-OF- PEARL TOP LAYER

Perlano is a concrete paver with an unusual top layer comprised of large natural aggregates and sea shells. Bonded in sand, the materials give the appearance of having been gently washed ashore.





PERLANO FLAG RANGE

www.hardscape.co.uk

Series 200	Series 300	Series 400	Series 500
200x200x70mm	300x150x70mm	400x400x70mm	500x500x70mm
200x200x80mm	300x150x80mm	400x400x80mm	500x500x80mm
200x400x70mm	300x300x70mm	400x600x70mm	
200x400x80mm	300x300x80mm	400x600x80mm	
200x500x70mm			
200x500x80mm			



COLOURS

REDCAR AND CLEVELAND LEISURE AND COMMUNITY HEART

REDCAR, NORTH YORKSHIRE

The development of Redcar and Cleveland Leisure and Community Heart embodies a significant step in the area's £31m regeneration scheme. Working with Redcar and Cleveland Borough Council, OOB (landscape architects) and Willmott Dixon (contractors) throughout the design process, Hardscape played an important role in the delivery of the project.

In addition to a leisure facility, the area also accommodates civic amenities and a prestigious business centre. The vision from the outset was to revamp this community space to attract visitors and encourage business growth. Crucially, the design needed to integrate with the nearby seafront, which draws on marine and industrial themes.

Spanning an area of over 5,000m², Hardscape used modern hard landscaping techniques and a palette of earthy blends to correspond with the tones of the surrounding buildings. Kellen Lavaró was selected for its sand-like appearance

and Kellen Perlano adds interest with its textured surface of shells and natural aggregates. Both products provide ample durability and a slip-resistant finish. With dark grey tones and natural fossils, bespoke Carlow Blue Limestone kerbs and walling create contrast against the lighter paving.

Hardscape was also involved in the recent revamp of the seafront at Redcar. The use of similar materials, in both projects, ensures a continuity of finishes and tones.

www.hardscape.co.uk



Materials Used

Kellen Perlano 200x400x80mm Giallo/Verde and Kellen Lavarò 100/200/300x200x80mm Geel and Wit paving.

SFERIO

SHOT-BLASTED SURFACE COATING

Sferio is a new addition to our Kellen concrete paving range and is a first in the marketplace. Using small stainless steel pellets, the top layers of setts and slabs are lightly shot-blasted to produce a subtle polished appearance.

The top layer consists of 100% natural aggregates, made from a blend of fine grain sizes that preserves original colours and provides an extremely hardwearing surface. Less susceptible to general fading and easy to maintain, Sferio's dense structure makes it difficult for dirt to penetrate. As a C4C compliant product, it is also an environmentally-friendly choice. More details on the C4C standard can be found on page 8 of this brochure.

Key Features

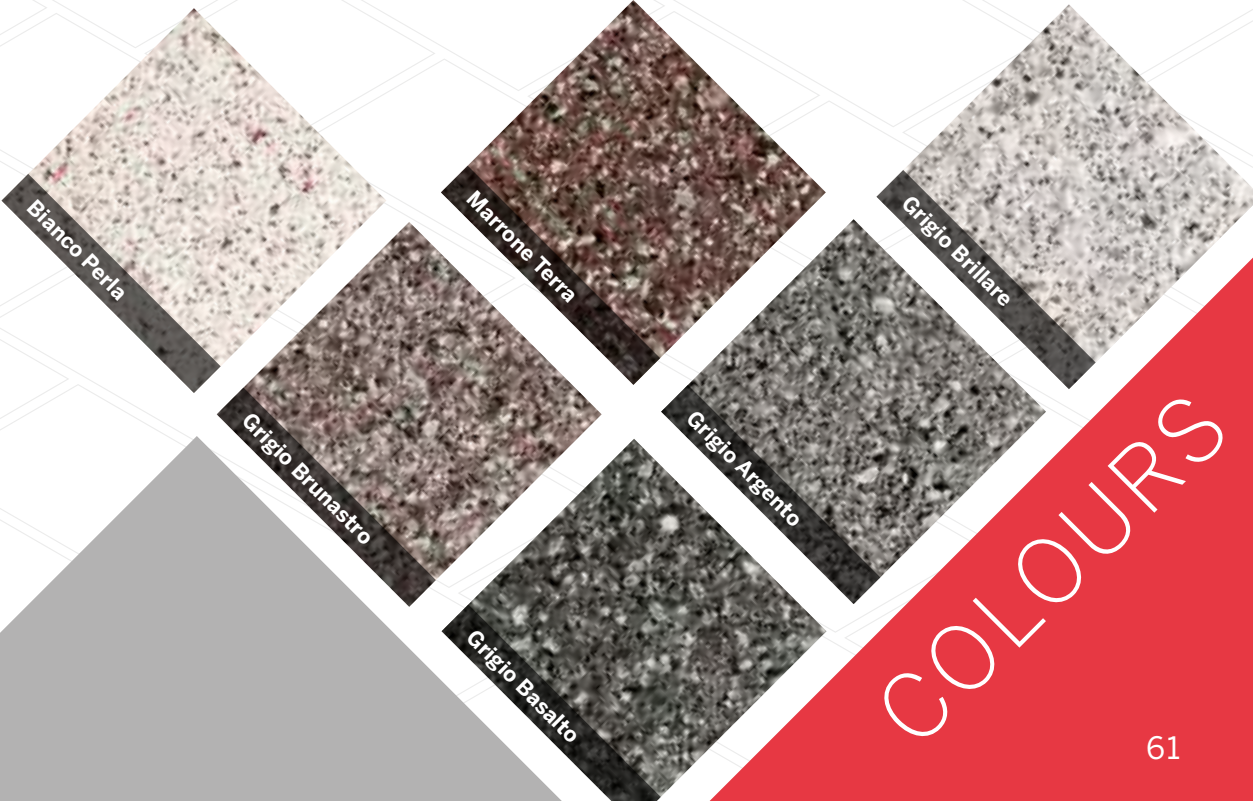
- 100% natural aggregate, shot-blasted surface (stainless steel)
- Blend of fine grain sizes
- Colour and dimensionally stable
- Easy maintenance and Cycle for Concrete compliant.



SFERIO DESIGN RANGE

Series denotes the width x length x thickness of the products.

Series 50 50x400x100mm	Series 100 100x200x80mm	Series 125 125x250x80mm	Series 200 200x200x62mm	Series 300 300x300x62mm	Series 500 500x500x80mm
Series 60 60x240x80mm	100x300x100mm 100x300x120mm	Series 150 150x150x80mm	200x200x80mm 200x200x100mm	300x300x80mm 300x300x100mm	500x500x100mm 500x700x100mm
Series 69 69x210x80mm	Series 105 105x210x80mm	150x200x80mm 150x300x62mm	200x300x62mm 200x300x80mm	300x600x80mm 300x600x100mm	500x1000x100mm Series 600
Series 70 70x600x100mm	105x315x80mm 105x420x100mm	150x300x80mm 150x300x100mm	200x300x100mm 200x400x80mm	300x900x100mm Series 400	600x600x80mm 600x900x100mm
Series 75 75x300x80mm	105x210x100mm Series 110	150x400x80mm 150x600x100mm	200x400x100mm 200x600x80mm	400x400x80mm	Series 1000
Series 80 80x240x80mm	110x165x80mm 110x165x100mm	145x295x80mm	200x600x100mm Series 210		1000x1000x120mm 1000x1000x145mm
79x237x70mm	110x330x80mm 110x330x100mm		210x210x62mm 210x210x80mm		



COLOURS

KIRKSTALL FORGE

KIRKSTALL, LEEDS

The Leeds suburb of Kirkstall has been undergoing considerable regeneration in recent times. With the opening of a new train station and the development of the Kirkstall Forge neighbourhood, the area has been given a fresh lease of life. Hardscape worked closely with the landscape architects, Planit-IE, to devise and supply a paving scheme to match the high aspirations for this up-and-coming residential and commercial area.

Formerly the site of the British Leyland motor conglomerate, the aim of the project was to revive the rich industrial history of the forge and to convert a relatively unused, linear section of land into a more functional and diverse space.

Hardscape selected a range of quality materials to enhance the attractive riverside and station setting. Kellen Sferio Bianco Perla paving was used to define a walkway along the river. The multi-tonal, pearl-like product matched the landscape architect's desire for a bright but durable surface finish. Soft tones of white, pink and orange combine with Sferio's appealing shot-blasted surface texture to produce a warm and vibrant effect. Offset against burnt orange Corten Steel bollards and planters, the contrast echoes the duality of the natural and industrial space.

The Kellen planks were laid against Kobra Granite kerbs and a number of complex kerb accessories. Hardscape also supplied Neland Dutch Clay to pave the station platforms in a blend of pink, purple and brown shades.

With national and international connections right on its doorstep, Kirkstall is set to become a new residential and transport hub for the North. Further plans have been unveiled for the next phase of the scheme which will include residential, commercial and recreational spaces.



Materials Used
Kellen Sferio 200x400/600x80mm Bianco Perla paving.

KALEIDO

Reflecting society's evolving aspirations for public spaces, Kaleido is an exciting new addition to our Kellen product portfolio.

Further to the existing selection of colours and finishes, Hardscape has developed the capability to create bespoke top mixes in Breccia or Lavarò finishes. Working closely with designers and specifiers, we blend coloured aggregates to produce a unique top surface for paving. Lighter or darker tones can be established and transitions of colour or shade can be achieved within the same paving unit.

Hardscape has the ability to store and replicate the finished blend for future projects and Kaleido can be ordered on an exclusive basis, where the blend would be accessible to one specific client or project only.

Kaleido is available in all standard Lavarò and Breccia mould sizes. Our highly trained technical sales team is on hand to provide more information or to start the design process.



PASTICHE

Kellen is renowned for enabling designers to stamp their own signature on projects. To keep pace with evolving trends in paving design and to meet the exacting expectations of increasingly discerning clients, the range is constantly improving and advancing. This innovation has facilitated the development of Pastiche.

Hardscape can now offer pre-blended mixes of colours, textures and paving unit sizes, selected by hand in the factory, to be delivered on pallets pre-mixed as per designers' specific pattern.

Examples of the Pastiche range include the Brugghe mix, a Lavarò blend of three different unit sizes and colours, and our Delft mix, combining Lavarò, Breccia, Liscio and Sferio finishes with a bespoke Kaleido blend of coloured aggregates.

Hardscape can now offer pre-blended mixes of colours, textures and paving unit sizes. These are selected by hand in the factory and delivered on pallets, prepared as per the designer's specific pattern.

As always, the team at Hardscape are here to offer help and advice, no matter what the project.

University Quarter, Stoke-on-Trent



University Quarter, Stoke-on-Trent.

PERMEABLE H₂O PAVER

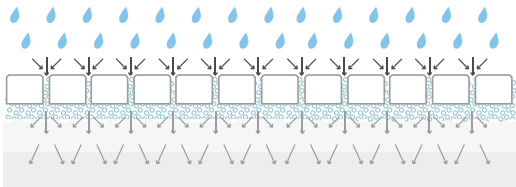
The Kellen H₂O paving system is an innovative permeable block paver that provides an attractive, durable surface finish, while also acting as an effective drainage solution. Available in Breccia (p12) and Lavarò (p28) finishes and corresponding colours.

The continuing growth of urbanisation, combined with increasingly extreme weather events, means that flooding and water damage are now of great concern for many households. Sustainable Urban Drainage Systems, or SUDS, are recognised as an efficient approach to surface drainage in urban areas. H₂O Pavers work in conjunction with SUDS, and other drainage systems, to gradually disperse water in a controlled process. Water passes through the joint between each paving unit and into the permeable sub-base beneath. Here it connects with the installed drainage system, where it is stored and slowly released.

The permeable properties of H₂O Pavers prevent standing surface water from forming. This enhances urban design by eliminating the need for channels or gullies. The system is available in the Breccia, Lavarò, Liscio and Sferio finishes and corresponding colours. The spacers are manufactured to allow for a wide variety of laying patterns, making the system suitable for both pedestrian and vehicular use. Infiltration rates are determined by the jointing material applied.

Type	Size	Technique	Permeability	Finish	Machine Package
Passing	210x105x80mm	Cut-out 2.5%	500 - 2500*	Breccia, Lavarò	210x105x80mm
Passing	210x105x100mm	Cut-out 5.0%	1000 - 5000*	Breccia, Lavarò	N/A

*Dependent upon jointing material.



PERMEABLE DRAINJOINT

Drainjoint permeable paving is easy to install and can be used with many different materials. Removing the need for pavers to carry nibs or extensions and avoiding the requirement for large, unsightly aggregate joints, the system preserves the beauty of the paving material.

Drainjoint allows for any material to be laid as a permeable paving system, be it natural stone, clay or concrete, and it can accommodate any paving size (not just those designed for a 6mm aggregate joint). The product is designed to be sustainable, cost-effective and easy to install.

No aggregate joints means no continuous maintenance or rattling of blocks. No rattling reduces the potential for surface failure and eradicates the need for expensive rejointing. Paving can be cleaned with a standard mechanical sweeper. And, as Drainjoint is non-degradable and does not absorb water, there is no potential for freeze-thaw damage.

Key Technical Features

- Permeable infiltration joint
- Suitable for pedestrian and vehicular uses
- DEFRA compliant design service
- Paving can be laid to 'no falls'
- For use on standard permeable sub-base with sand joints as per Interpave and BS EN standards.



AESTHETIC DOUBLE EXCEL

Custom-made Double Excel slabs provide a practical and appealing choice for large spaces.

Produced using specialist techniques, these slabs offer collection wells with hidden and open drainage channels. They are available in a broad selection of colours and shapes, with the added option of bespoke colouring.

Due to their size and weight, mechanical vacuum handling is necessary to lift and position Double Excel slabs. Hardscape can provide thorough laying guides for contractors on request.

Double Excel Metal Edge

Double Excel can also be ordered with a metal edging to help protect the slab. This specification is favoured in projects when an old industrial feel is sought but a modern solution is required. In comparison to standard slabs, Double Excel Metal Edge slabs have a slightly smaller joint between them and have no chamfer. This results in a more visible linear pattern that can be incorporated into the design to form eye-catching effects.

Plain Chamfered

Metal Edge

FINISHES
PATTERNS
COLOURS



DOUBLE EXCEL DESIGN RANGE



Pattern Slabs* (with 5mm chamfer edge – not steel)

Size	Pattern	Dimensions	Traffic Class
2x2m	Cobblestone (Standard Finish)	1990x1990x140/160mm	300/450/600/600+
2x2m	Embossed (Standard Finish)	1990x1990x140/160mm	300/450/600/600+
1.5x2m	Embossed	1490x1990x140/160mm	300/450/600/600+
1x2m	Embossed	990x1990x140/160mm	300/450/600/600+
2x2m	Smoothwave (Standard Finish)	1990x1990x140/160mm	300/450/600/600+
2x2m	Smoothwave Crossing (Standard Finish)	1990x1990x140/160mm	300/450/600/600+
2x2m	Kerb Motif (Standard Finish)	1990x1990x120/140/160mm	300/450/600/600+
1x2m	Kerb Motif (Standard Finish)	990x1990x120/140/160mm	300/450/600/600+
1.8x1.8m	Tile Motif (Stippled Finish)	1800x1800x120/140/160/180mm	300/450/600/600+
1.5x1.8m	Tile Motif (Stippled Finish)	1500x1800x120/140/160/180mm	300/450/600/600+
1.2x1.8m	Tile Motif (Stippled Finish)	1200x1800x120/140/160/180mm	300/450/600/600+

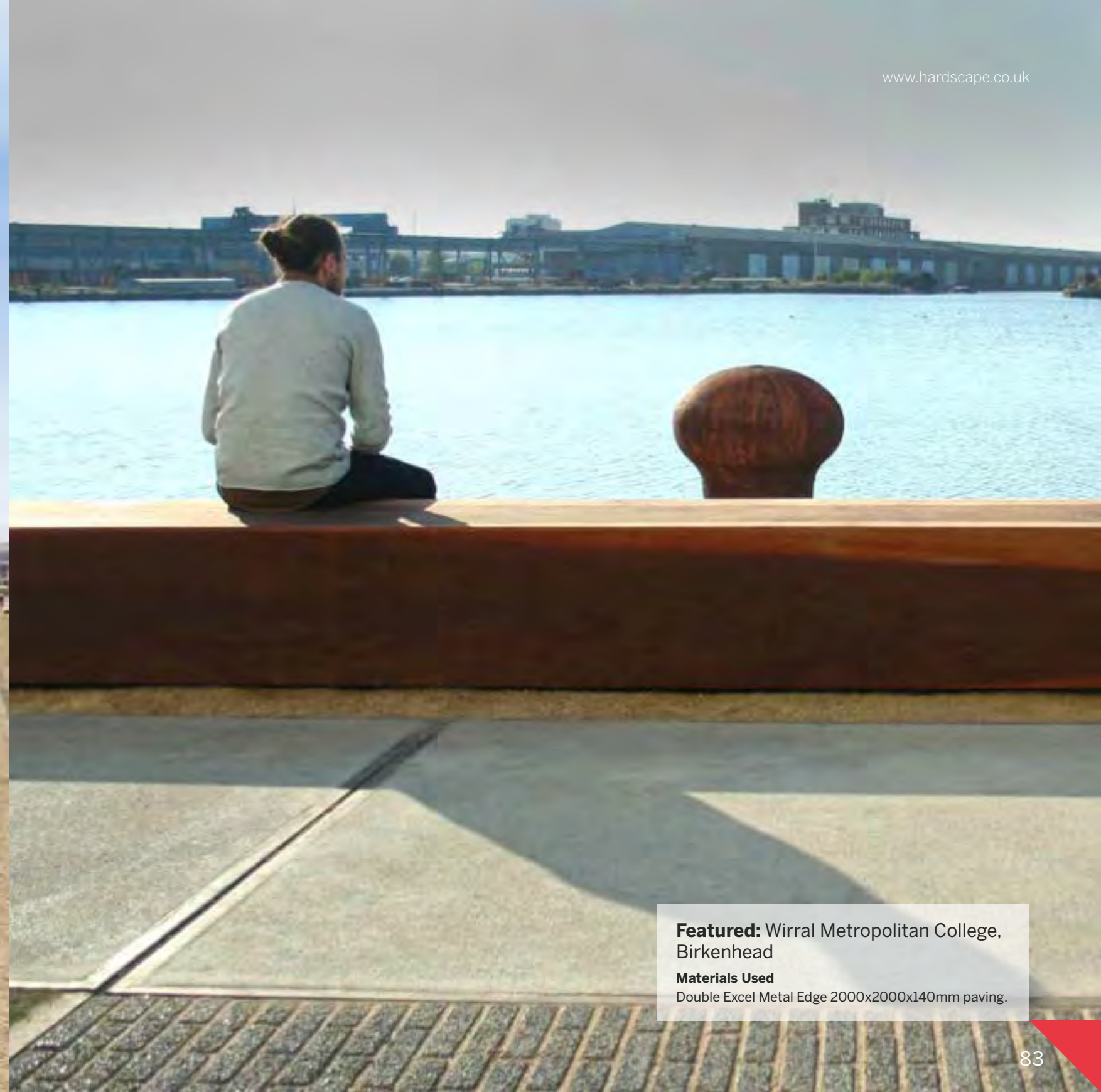
Chamfered Edge* (stippled finish – 5mm chamfer – no lifting holes – brushed finish/10mm chamfer/lifting holes)

Size	Finish	Dimensions	Traffic Class
2x2m	Stippled	1995x1995x120/140/160/180mm	300/450/600/600+
1.5x2m	Stippled	1495x1995x120/140/106/180mm	300/450/600/600+
1x2m	Stippled	995x1995x120/140/160/180mm	300/450/600/600+
2x2m	Brushed	1990x1990x120/140/160mm	300/450/600/600+
1.5x2m	Brushed	1490x1990x120/140/160mm	300/450/600/600+
1x2m	Brushed	990x1990x120/140/160mm	300/450/600/600+

On request, the six items above can be fitted with steel, stainless steel or galvanised (with or without lifting holes) or with steel or stainless steel with black paint applied (with or without holes) – no chamfer.

	Traffic Class 450		Traffic Class 600
Slab Thickness	140mm	Slab Thickness	160mm
Axle Loads	15 tonnes	Axle Loads	20 tonnes
Solid Forklift Tyres	9 tonnes	Solid Forklift Tyres	10 tonnes
Pneumatic (or Air) Forklift Tyres	10.7 tonnes	Pneumatic (or Air) Forklift Tyres	12 tonnes
Point Loads	6 tonnes	Point Loads	7 tonnes

*Available in all four colours.



Featured: Wirral Metropolitan College,
Birkenhead
Materials Used
Double Excel Metal Edge 2000x2000x140mm paving.

AESTHETIC STREET ART

Street Art paving slabs bring creativity and fun to hard landscaping projects. Developed in conjunction with the Dutch designer, Baukje Trenning, the contemporary collection combines well with Kellen products or natural stone materials to add interest and originality to paving schemes.

Available in 600x600x60mm slabs, the series consists of some neutral patterns and a number of bolder options that can be arranged to create engaging public spaces. Bespoke patterns can also

be submitted to our in-house production team for consultation. Please contact a Hardscape sales representative to discuss the possibilities.

PATTERNS

Streamlined Scratches

Binary Fields

Waving Hands

Smoothwave

Floating Pebbles

www.hardscape.cd.uk

GREEN PAVING

The city of the future has many obstacles to face. A heightened risk of flooding caused by climate change is compounded by increased urbanisation. The rise in the use of paving is also leading to the existence of 'urban heat islands', places where sunlight is absorbed more rapidly and stored for longer. Local authorities, developers and architects are seeking sustainable solutions to overcome these challenges. By incorporating greenery within the paving layout, Kellen's Green Paving range is an innovative response to these concerns.

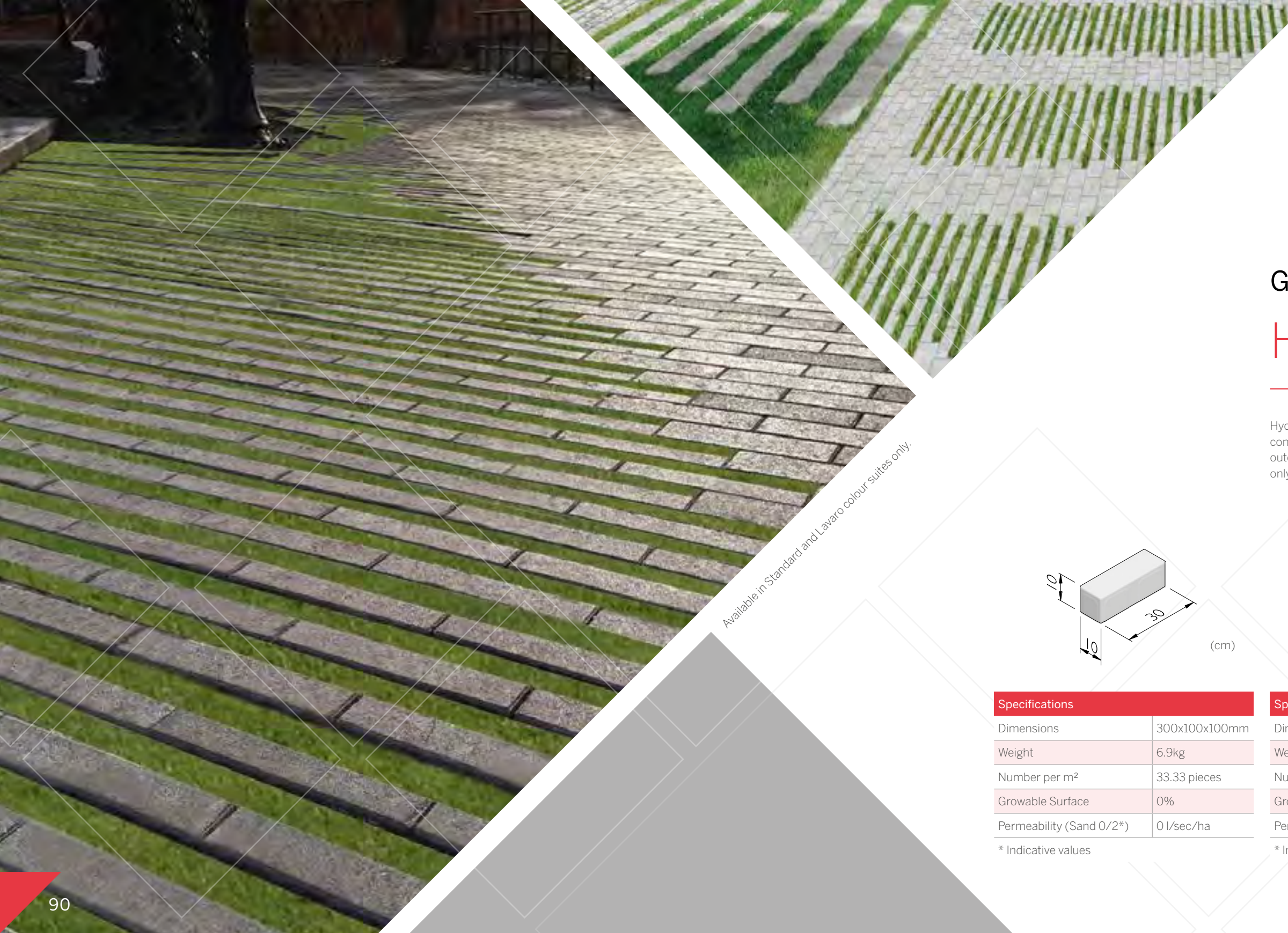
Following periods of extreme precipitation, greenery facilitates the accelerated dispersion of water into the soil. This has a cooling effect in urban spaces due to the water evaporation process. Greenery enhances public spaces, making them better, healthier and more enjoyable places to live and work.

However, traditional paving remains necessary to ensure the accessibility and safety of these spaces. By alternating pavement and greenery, the Green Paving range secures the benefits of both

approaches. Helping to promote a sustainable living environment, the range is available in three types with distinct aesthetic and technical properties: Hydro Lineo, Square and Virage.

Further details on Kellen Green Paving can be found in our dedicated online brochure.





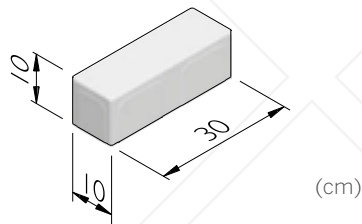
GREEN PAVING

HYDRO LINEO

Hydro Lineo comprises three different models of concrete grass pavers with a uniform, nominal outer size. The width of the widened joint is the only variation across the models and means they

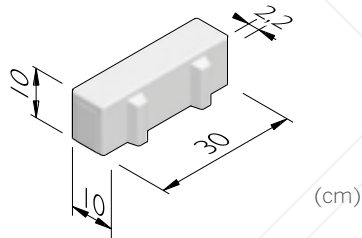
can be used independently or interchangeably. The increased widened joint enables the Hydro Lineo to transition smoothly from a closed to an open pavement and back again.

Available in Standard and Lavaro colour suites only.



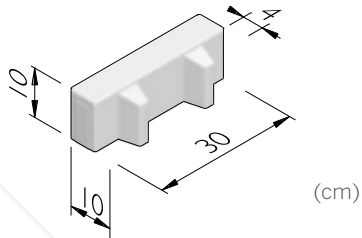
Specifications	
Dimensions	300x100x100mm
Weight	6.9kg
Number per m²	33.33 pieces
Growable Surface	0%
Permeability (Sand 0/2*)	0 l/sec/ha

* Indicative values



Specifications	
Dimensions	300x100x100mm
Weight	5.5kg
Number per m²	33.33 pieces
Growable Surface	22%
Permeability (Sand 0/2*)	220 l/sec/ha

* Indicative values



Specifications	
Dimensions	300x100x100mm
Weight	4.5kg
Number per m²	33.33 pieces
Growable Surface	40%
Permeability (Sand 0/2*)	400 l/sec/ha

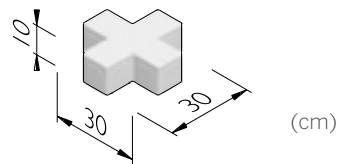
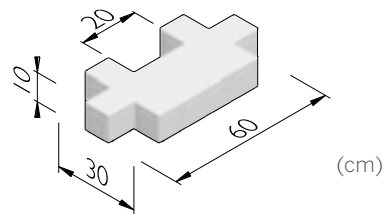
* Indicative values

GREEN PAVING

SQUARE

Designed by Marseille Buiten, the Square concrete grass paver enhances the creative scope of paving schemes. It can be laid in four pleasing patterns and, given its dimensions, the standard

concrete slab can be used to define a path, demarcate a parking bay or form a small square. It is also possible to lay a diagonal path across the pavement without interrupting the pattern.



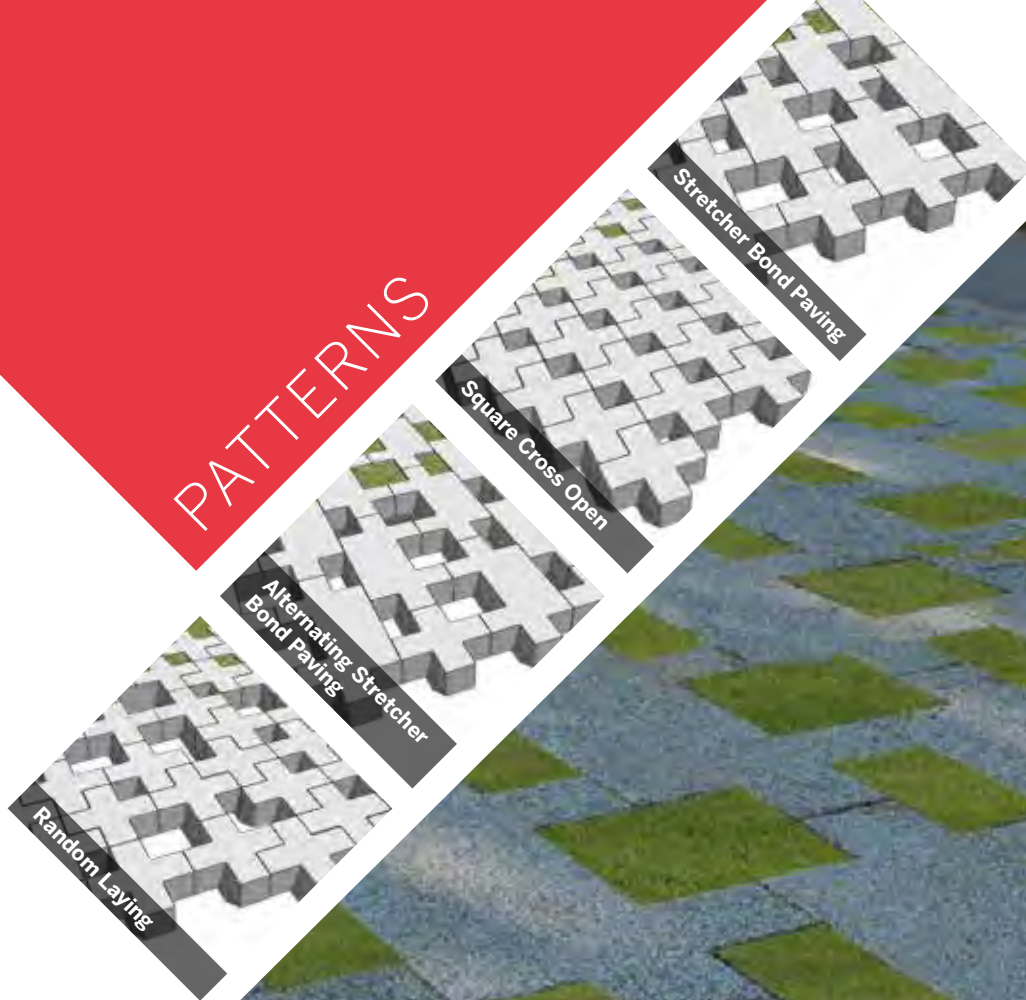
Specifications	
Dimensions	600x300x100mm
Weight	28.2kg
Number per m ²	5.5 pieces
Growable Surface	33%
Permeability (Sand 0/2*)	330 l/sec/ha

* Indicative values

Specifications	
Dimensions	300x300x100mm
Weight	11.8kg
Number per m ²	11 pieces
Growable Surface	20%
Permeability (Sand 0/2*)	220 l/sec/ha

* Indicative values

PATTERNS



Available in Standard and Lavaró colour suites only.

PATTERNS

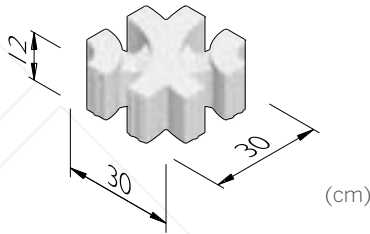


GREEN PAVING VIRAGE

The modular formation of the Virage green paver allows for several different patterns to be executed. Balancing concrete with grass or

pebbles in symmetrical arrangements, the Virage's gentle curves imbue an organic feel within an ordered layout.

Available in Standard colours only.



Specifications	
Dimensions	300x300x120mm
Weight	15.8kg
Number per m ²	11 pieces
Growable Surface	46%
Permeability (Sand 0/2*)	460 l/sec/ha

* Indicative values

EDUCATIONAL

Outdoor play is a natural and necessary part of every child's development. Whether it be in a park, playground or local street, safe and inspiring spaces to explore and interact are essential to our children's health and well-being.

Kellen's Educational concrete range offers a wealth of exciting products that encourage imaginative and safe play. From sand to water play, in standard or custom-made formats, Kellen Educational promotes better neighbourhood environments and, above all, happier children!



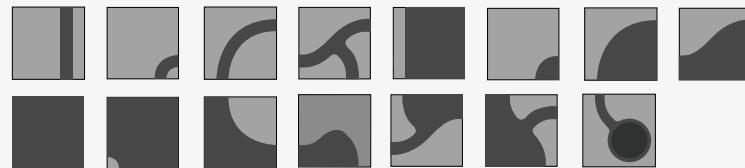
EDUCATIONAL PLAYTIME WITH WATER

Kellen water flags are a perfect example of the inventive and engaging characteristics of the range. Evoking streams and ponds, they encourage fun, freedom and interactivity. Designed by Kathlijn de Booij and influenced by the Dutch Delta Works, the concrete flags transform into imaginary rivers and lakes when filled with water.

The flowing slopes and gullies form a natural, motivating play area where children can jump, splash and sail boats. Under supervision, a water butt with a tap ensures play can continue in better weather.

The innovative design was the worthy winner of the Dutch Cement & Concrete Centre's 'Playful Concrete Ideas' award in 2012.

Please refer to our online Kellen Educational brochure for full details of the range.



ELEMENTALE

Elementale is a versatile range of concrete-based streetscape 'elements' created to enhance modern outdoor environments. The design and ergonomic properties of our streetscapes, while often taken for granted, profoundly affect the way we live, travel, work and relax. As such, it is essential that our urban environments feel safe and comfortable. Integrating green spaces, parks, playgrounds and civic squares into towns and cities provides a valuable link with nature and gives residents the opportunity to rest, socialise or play.

With a variety of shapes, models and colours, Elementale presents a collection of stylish products to complete and augment any vibrant urban scheme. The range boasts a wide palette of colourful paving options and an impressive

selection of additional concrete elements for pavements, street furniture and municipal green areas. And, as products are supplied as standard or to order, the Elementale range is available in any number of configurations.

COLOURS

**Available in Lavarø finish only.*

ZVB Zwart

ZVB Rood

ZVB Geel

ZVB Licht Grijs

ZVB Donker Grijs

Grijs 712*

Wit 701*

ZVB Wit

Zwart/Groen 701*

Bont GIG*

Zwart 701*

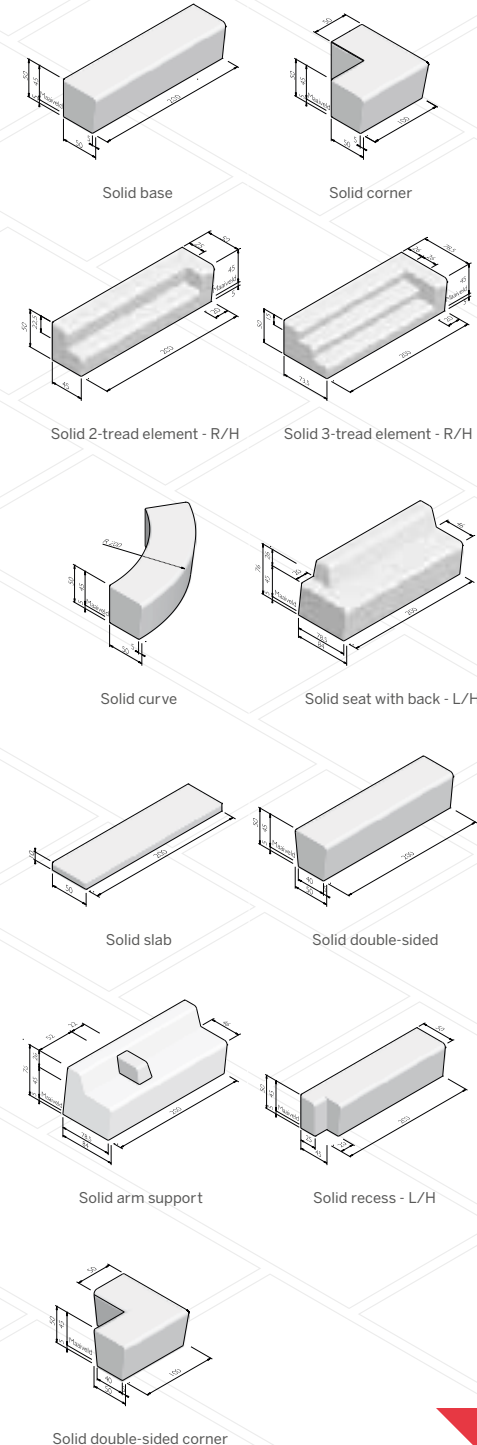
Wit 705*

Bont 703*

Concrete naturally displays an attractive weathered look and its grey tones blend well with the environment. For more distinctive colours and textures, the Lavarø finish provides a broader spectrum of possibilities.

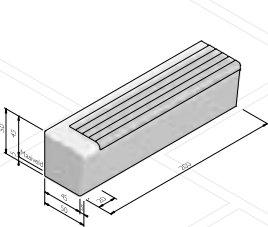
ELEMENTALE DESIGN RANGE

Model	Length	Width	Height	Weight	No. per 360°
Solid base 1m	100cm	50/45cm	50cm	558kg	
Solid base 1m end	100cm	50/45cm	50cm	558kg	
Solid base 2m	200cm	50/45cm	50cm	1,116kg	
Solid base 2m end	200cm	50/45cm	50cm	1,116kg	
Solid corner 90° external	100cm	50/45cm	50cm	837kg	
Solid curve 1.2m radius	189cm	50/45cm	50cm	853kg	4
Solid curve 2m radius	157cm	50/45cm	50cm	692kg	8
Solid curve 3m radius	157cm	50/45cm	50cm	723kg	12
Solid curve 4.5m radius	177cm	50/45cm	50cm	1,077kg	16
Solid curve 6m radius	188cm	50/45cm	50cm	1,103kg	20
Solid seat with back - L/H	200cm	84cm	76cm	2,165kg	
Solid seat with back - central	200cm	84cm	76cm	2,213kg	
Solid seat with back - R/H	200cm	84cm	76cm	2,165kg	
Solid arm support	41cm	22cm	18cm	36kg	
Solid recess - L/H	180/200cm	50/45cm	50cm	1,063kg	
Solid recess - central	200cm	25cm	50cm	588kg	
Solid recess - R/H	180/200cm	50/45cm	50cm	1,063kg	
Solid 2-tread element - L/H	200cm	50/45cm	22.5/50cm	851kg	
Solid 2-tread element - central	200cm	25/45cm	22.5/50cm	822kg	
Solid 2-tread element - R/H	200cm	50/45cm	22.5/50cm	851kg	
Solid 3-tread element - L/H	200cm	78cm	50cm	1,289kg	
Solid 3-tread element - central	200cm	78cm	50cm	1,234kg	
Solid 3-tread element - R/H	200cm	78cm	50cm	1,289kg	
Solid slab	200cm	50cm	10cm	23.5kg	
Solid double-sided 1m	100cm	50/40cm	50cm	545kg	
Solid double-sided 2m	200cm	50/40cm	50cm	1,058kg	
Solid double-sided corner 90° external	100cm	50/40cm	50cm	793kg	

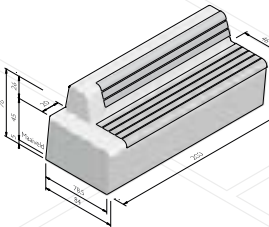


Please refer to our online Kellen Elementale brochure and Kellen Assortimentswijzer for further details and latest product additions.

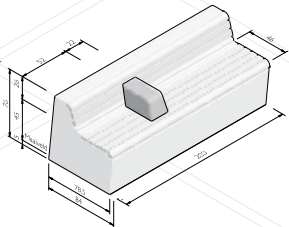
Model	Length	Width	Height	Weight
Seat - L/H	200cm	50/45cm	50cm	1,030kg
Seat - central	200cm	50/45cm	50cm	1,023kg
Seat - R/H	200cm	50/45cm	50cm	1,030kg
Seat with back - L/H	200cm	84cm	76cm	2,059kg
Seat with back - central	200cm	84cm	76cm	2,107kg
Seat with back - R/H	200cm	84cm	76cm	2,059kg
Seat arm support	41cm	22cm	18cm	12kg
Seat double-sided - L/H	200cm	50/40cm	50cm	974kg
Seat double-sided - central	200cm	50/40cm	50cm	965kg
Seat double-sided - R/H	200cm	50/40cm	50cm	974kg



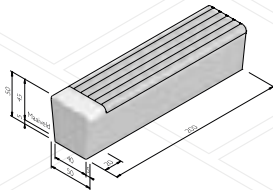
Seat - L/H



Seat with back - L/H



Seat arm support



Seat double-sided - L/H



Wood finishes

Wooden parts are treated with a transparent, water-based nano coating as standard. This emphasises the natural structure of the grain, giving a warmer tone and preserving the original appearance of the wood for a number of years. Reducing maintenance costs, the UV-resistant coating repels oil and grease.



ACCESSORIES

KERB SYSTEMS AND EDGINGS

Hardscape supplies an extensive selection of kerbs, channels and accessories that provide functional, integrated borders between highways and pavements, in addition to creating effective water management solutions.

Produced in the Lavarò finish, our range of kerb systems and edgings is designed to work in harmony with Kellen pavers and flags. A diverse palette allows for both seamless colour matching and the creation of contrast for guidance or marking.

Special colours can be produced upon request.

Zwart/Grijs 20

Wit 705

Grijs 712

Zwart 704

Zwart 701

Bont 703

Wit 701

Havanna Bruin

GIG

Zwart/Groen 701

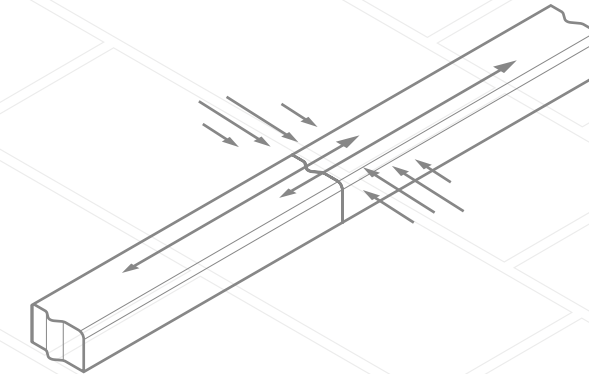
COLOURS

KERB RANGE

Featured below is a typical selection from our comprehensive range of kerbs.

All of our kerb and channel ranges are designed to incorporate form and function within each single unit, making ordering and installation simple.

-  Flush Kerbs
-  Bullnose Kerbs
-  Half Battered Kerbs
-  Flat Channel
-  Splayed Kerbs
-  Crossover Kerbs
-  Angle Top Kerbs



By guiding the kerbs in a straight line during installation, the V-type connection ensures better resistance against tilting for heavy traffic settings.

Flush Kerbs
80x200x1000mm
Zwart 701



Flush Kerbs
120x250x1000mm
Zwart/Groen 701



Bullnose Kerbs
100x200x1000mm
Zwart/Grigio 20



Bullnose Kerbs
150x400x1000mm
Grijs 712



Half Battered Kerbs
180/200x160x1000mm
Bont 703



Half Battered Kerbs
180/200x250x1000mm
Havanna Bruin



Half Battered Kerbs
170/200x400x1000mm
Grijs 712



Half Battered Kerbs
230/250x200x1000mm
Licht Biardo
(bespoke only)



Half Battered Kerbs
130/150x160x1000mm
GIG



Half Battered Kerbs
130/150x250x1000mm
*Groen 701



Half Battered Kerbs
130/150x250x1000mm
Wit 705



Half Battered Kerbs
130/150x250x1000mm
Zwart 701



Half Battered Kerbs
280/300x240x1000mm
Zwart 701



Half Battered Kerbs
280/300x240x1000mm
Donker Biardo
(bespoke only)



Half Battered Kerbs
280/300x300x1000mm
Zwart/Grigio 20



Half Battered Kerbs
380/400x250x1000mm
Bont 703



*Colour swatch not available.

ACCESSORIES

STEPS

Like kerbs, accessories and street furniture, steps are an important component to consider when approaching any hard landscaping project. Kellen concrete steps are both affordable and stylish, offering an ideal accompaniment to the Kellen paving range.

Steps can be tailored to suit individual designs, using various colour combinations and different material inserts.

Please refer to our online Kellen Assortimentswijzer brochure for further details on the range or speak with a Hardscape representative to find out more about our bespoke options.

Contrasting coloured 50x50mm nosing can be applied upon request.

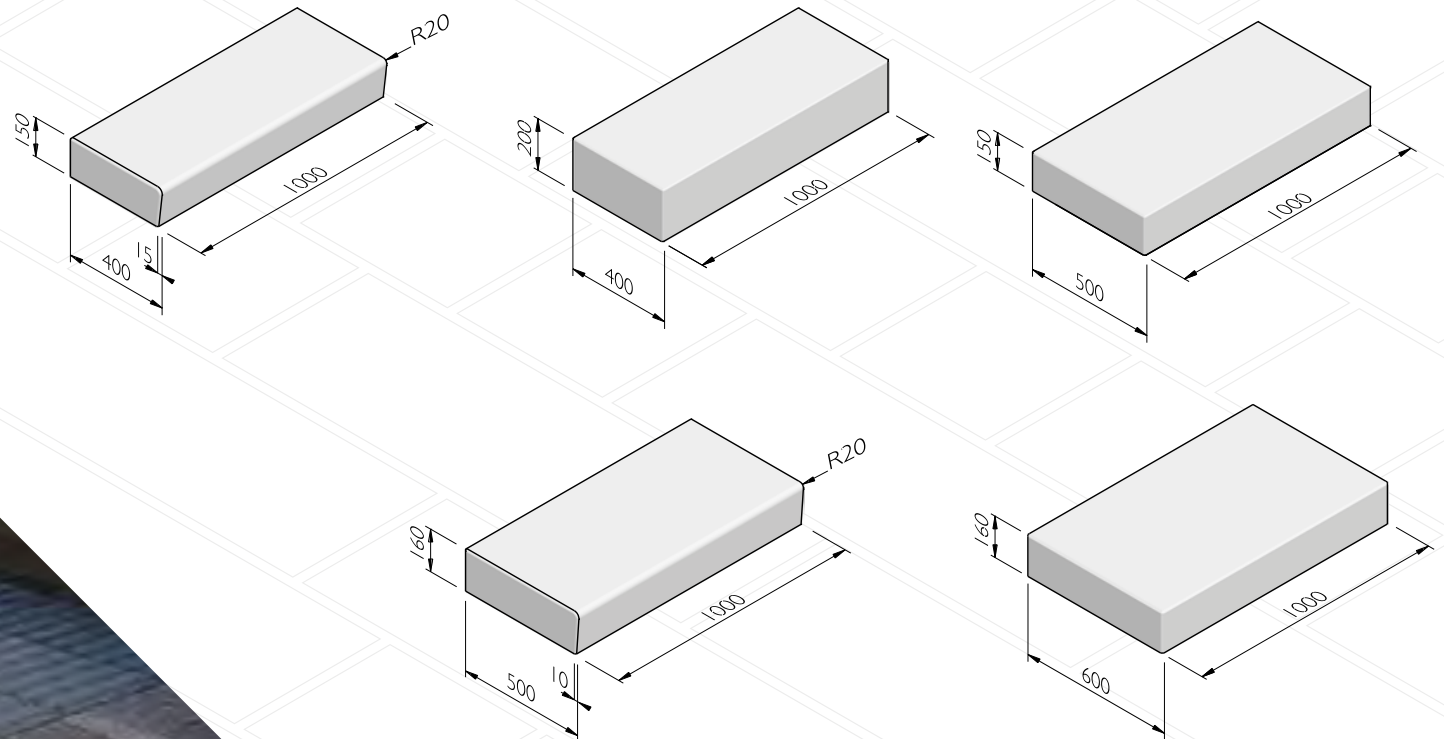
Contrasting coloured strips can be applied where required upon request.



COLOURS

Special colours can be produced upon request.

DIMENSIONS



All of the dimensions above (mm) can be fitted with Disability Discrimination Act (DDA) compliant nosings and strips.

SOLAR STREETLINE

Solar Streetline is an ingenious range of outdoor concrete benches and tables. Fitted with integrated solar panels, the street furniture converts sunlight into clean energy.

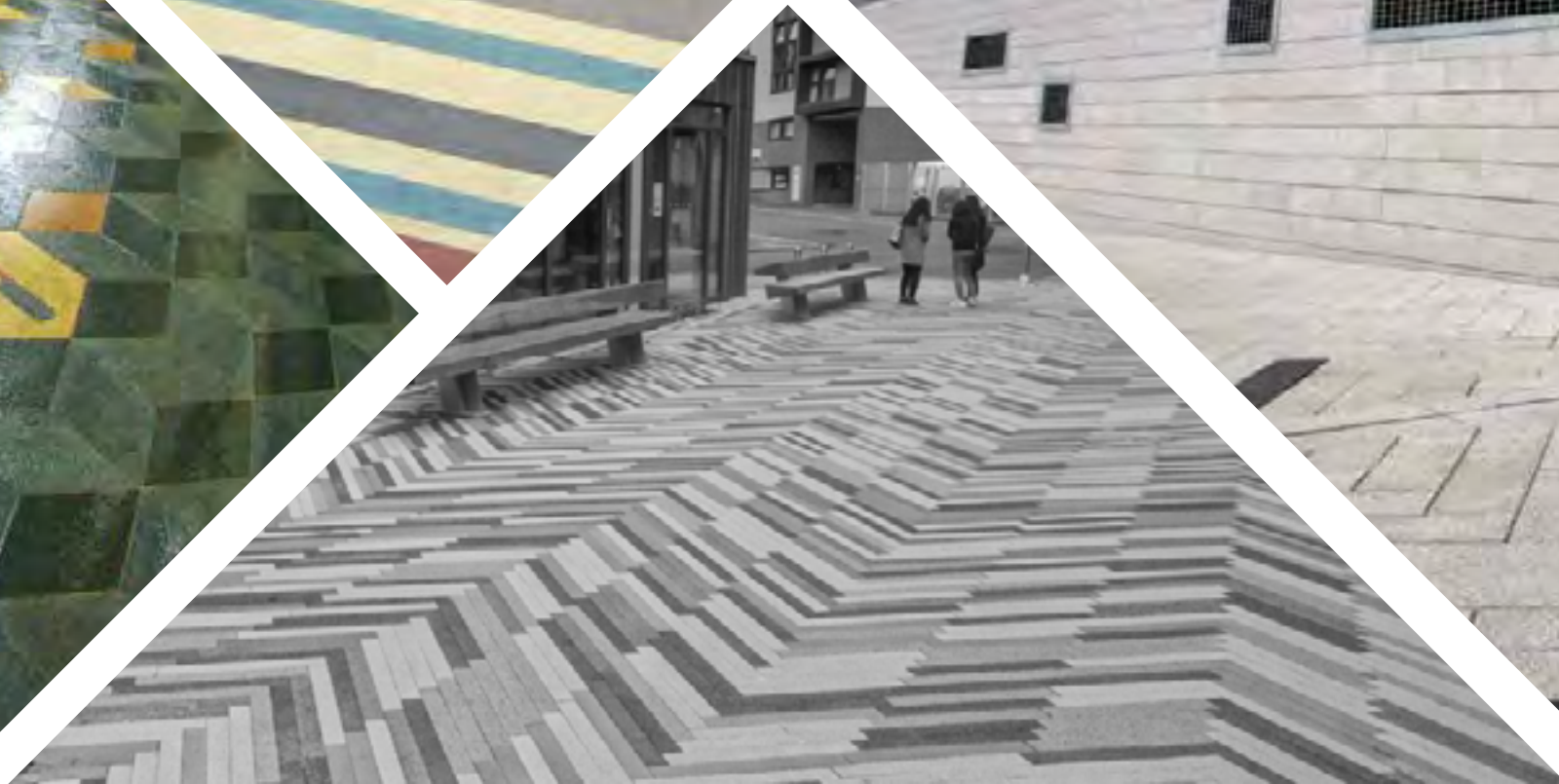
The sustainable energy produced can then be used to charge digital devices, control fountains in public spaces or even power street lighting. Valuable to residents and visitors alike, Solar Streetline brings form and function to outdoor environments. The charging facility offers the benefit of free electricity while taking time out to relax.

Designed by Claudia van Riet of the creative agency, Fix, the collection is both modern and

timeless with its minimalist aesthetic and robust materials. The fusion of rugged concrete and high-tech solar panels results in an interesting spatial tension. Sensitive design thinking takes account of the transparent space between the solar cells, preventing it from becoming too dominant.

Full details of the Kellen Solar Streetline range can be found in our dedicated online brochure.





Visit www.hardscape.co.uk to download
our full range of Kellen brochures.





www.hardscape.co.uk