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Situated overlooking the Lake District, The Lakeland Range takes inspiration from the surrounding natural beauty.

Thomas Armstrong (Concrete Blocks) Ltd offers both practical and aesthetically satisfying block paving products that enhance all types of properties.



Above: Lakeland Driveway in Buff

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Every effort is made to ensure that colour samples match as close as possible to the product. Due to print and photographic processes, all colours should be used as a guide only.



Right: Lakeland Derwentstone® in Brindle Below: Lakeland Derwentstone® in Original



Left: Lakeland Derwentstone® in Sunset and Charcoal

Labeland DERWENTSTONE® & COBBLE

The Elegant Range
50mm - suitable for residential drives, paths and patios 60mm - suitable for drives and lightly trafficked roads
80mm - suitable for commercial sites.

Available in **Original** (a pale mix of Buff, Charcoal, Marigold, Red and Natural), **Ash, Autumn, Brindle, Buff, Charcoal,**Silver Haze (a pale mix of Buff, Charcoal, Marigold and Natural), **Harvest** and **Sunset**

50r	nm SINGLE SIZE	: PACK (COBE	NO.		oum
	SIZE				
50mm	105mm x 140mm	9.88m²	672	60mm	210mm 140mm
	50mm DUAL	SIZE PACK	NO.		80m
THICKNESS	50mm DUAL SIZE	SIZE PACK M ² PER PACK	NO. PER PACK	THICKNESS	80m SI

	NO.			
60mm	210mm × 140mm 140mm × 140mm	8.35m ²	170 170	
80mm DUAL SIZE PACK				

	NO.		
THICKNESS	SIZE	M ² PER PACK	PER PACK
80mm	210mm × 140mm 140mm × 140mm	6.23m ²	120 120





Right: Lakeland Derwentstone® in Charcoal





Above: Lakeland Derwentstone® in Ash **Left:** Lakeland Derwentstone® in Original with Castlerigg Circle in Original

Lakeland



Lakeland DERWENTSTONE®

















Every effort is made to ensure that colour samples match as close as possible to the product. Due to print and photographic processes, all colours should be used as a guide only.



Left: Lakeland Kendalstone in Ash with Charcoal borders

Right: Lakeland Kendalstone in Harvest Below: Lakeland Kendalstone in Sunset

Lakeland KENDALSTONE & COBBLE

The Desirable Range

50mm - suitable for residential drives, paths and patios 60mm - suitable for drives and lightly trafficked roads 80mm - suitable for commercial sites

Available in **Ash, Autumn, Brindle, Buff, Charcoal, Harvest, Sunset** and **Silver Haze**Other colours can be produced, subject to order

50mm SINGLE SIZE PACK (COBBLE)			
THICKNESS	SIZE	M ² PER PACK	NO. PER PACK
50mm	105mm x 140mm	11.29m ²	768

50mm DUAL SIZE PACK			NO. PER
THICKNESS	SIZE	M ² PER PACK	PACK
	210mm x 140mm	2 44 2	192

140mm x 140mm

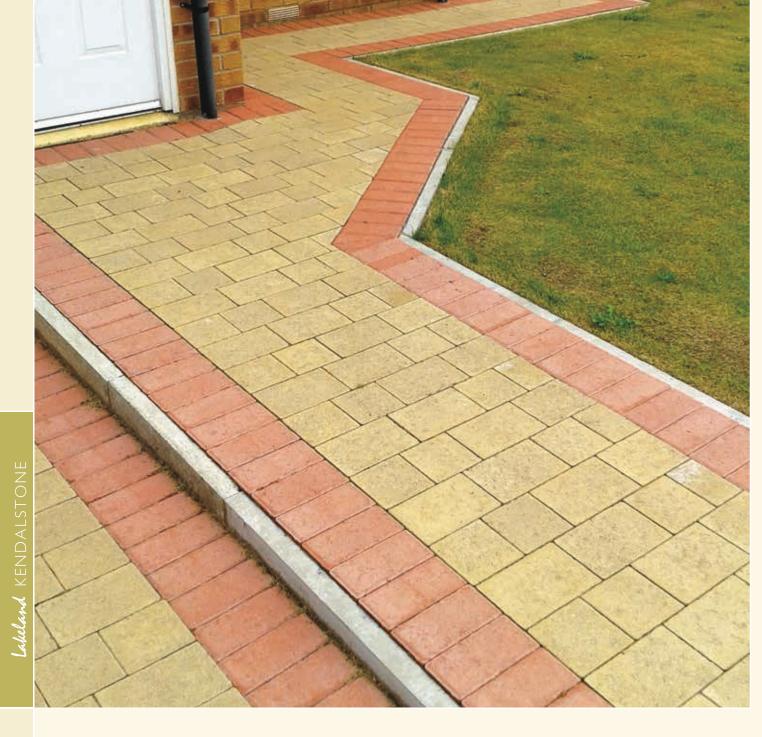
60mm DUAL SIZE PACK			
THICKNESS	SIZE	M ² PER PACK	NO. PER PACK
60mm	210mm x 140mm 140mm x 140mm	8.23m ²	168 168

	80mm DUAL SIZE PACK		
THICKNESS	SIZE	M ² PER PACK	NO. PER PACK
80mm	210mm x 140mm	5.88m ²	120



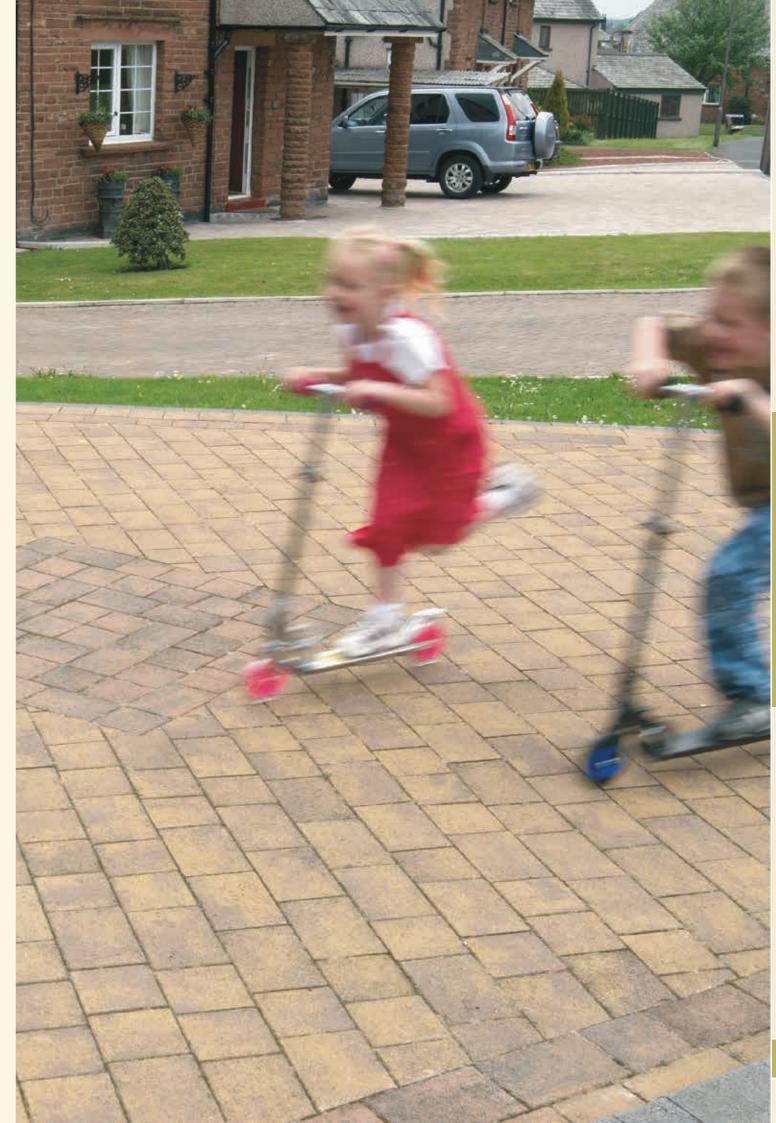
192











Labeland KENDALSTONE COLOURS















Every effort is made to ensure that colour samples match as close as possible to the product. Due to print and photographic processes, all colours should be used as a guide only.

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Left: Lakeland Driveway in Ash Below: Lakeland Driveway in Autumn Right: Lakeland Driveway in Brindle with Charcoal border

Lakeland DRIVEWAY

The Traditional Range

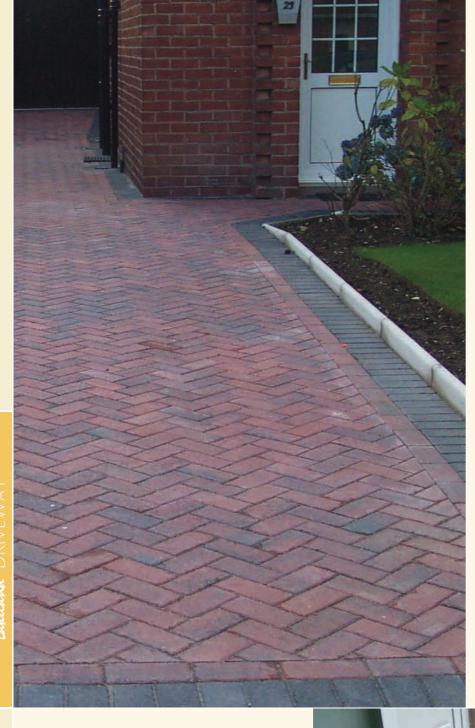
50mm - suitable for residential drives, paths and patios
 60mm - suitable for drives and lightly trafficked roads
 80mm - suitable for commercial sites

Available in Ash, Autumn, Brindle, Buff, Charcoal, Harvest, Natural, Red and Sunset Brown and Marigold colours can be produced, subject to order

THICKNESS	SIZE	M ² PER PACK	NO. PER PACK
50mm	200mm × 100mm	9.76m ²	488
60mm	200mm × 100mm	8.48m ²	424
80mm	200mm x 100mm	5.92m ²	296







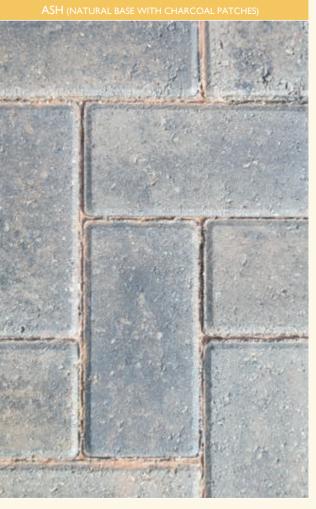
Left: Lakeland Driveway in Brindle Below: Lakeland Driveway in Harvest and Charcoal



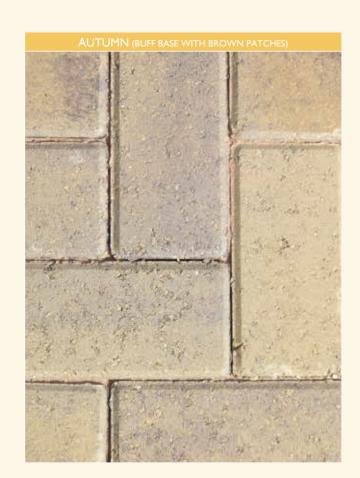


Above: Lakeland Driveway in Natural and Charcoal Lettering





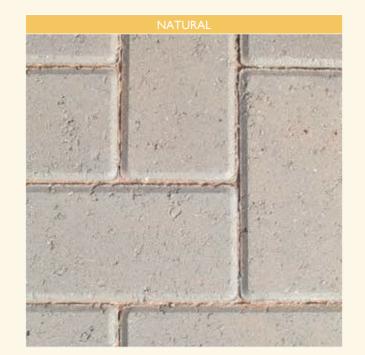
Lakeland DRIVEWAY COLOURS



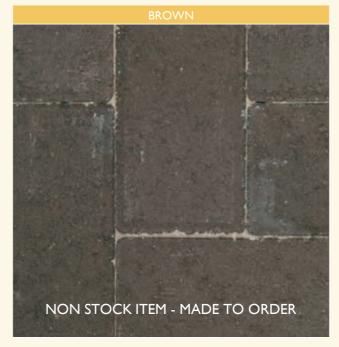


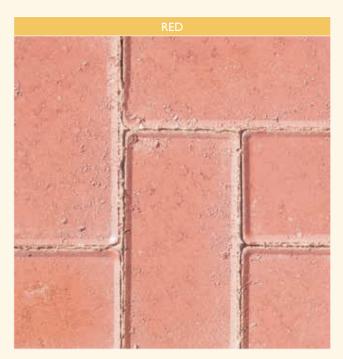


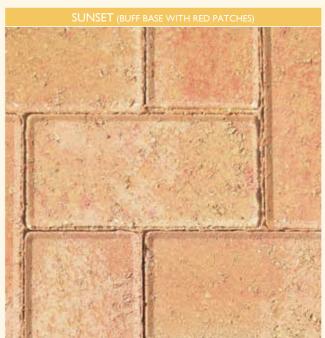
















Right: Lakeland Inglestone in Brindle Below: Lakeland Inglestone in Harvest Opposite Page: Lakeland Inglestone

Lakeland INGLESTONE

The Permeable Range

Lakeland Inglestone is an 80mm Permeable Paver which allows water to pass through the paved area and sub base to outflow pipes or infiltration to ground. Suitable for a wide variety of residential, commercial and industrial applications. Planners should be requesting CBPP and other SUDS systems for all types of developments.

Available in Brindle, Charcoal and Ash. Other colours like Harvest are also available, please enquire for further details.

THICKNESS	SIZE	M ² PER PACK	NO. PER PACK
60mm	214mm x 107mm	10.26m ²	448



Permeable paving, when used in conjunction with a properly constructed SUDS system offers a range of benefits:

- Allows rainfall to filter through the paved area, without weakening the structural integrity.
- Attenuation of rainfall, allowing it to be gradually absorbed into either the ground or controlled release through outflow pipes.
- Cost effective, when taking into account the absence of pipework, gulleys and inspection chambers, etc.
- Compliance with planning guidance (PPG25) 'Development and flood risks'.
- Improved water amenity achieved as the paving system acts as a filter of



Labeland INGLESTONE







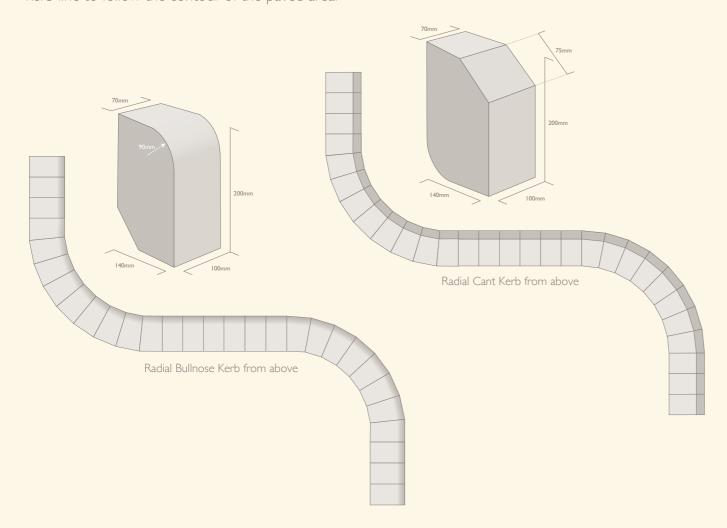
Every effort is made to ensure that colour samples match as close as possible to the product. Due to print and photographic processes, all colours should be used as a guide only.

ACCESSORIES

RADIAL KERBS

Radial Kerbs

Radial Kerbs are available to complement the Q Kerbs. These enable the kerb line to follow the contour of the paved area.





Left: *Lakeland* Kendalstone Ash, high external bullnose kerb charcoal, Q Kerb high external bullnose comer charcoal, with a charcoal cobble border.

ACCESSORIES

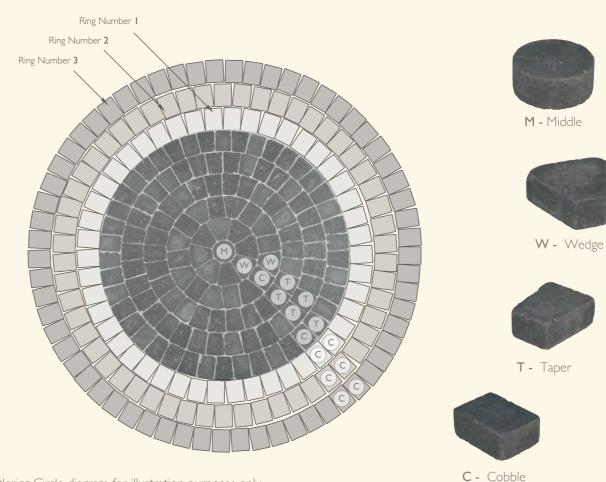
CIRCLES

Lakeland Castlerigg Circle

The *Lakeland* Castlerigg Circle is available either rumbled or unrumbled. Each circle comprises a centre piece and five rows covering an area of 1.89m² with a diameter of 1.55m. If the circle needs to be bigger additional pieces may be purchased on a special order.

Available in Finishes: Smooth and Rumbled. Colours: Silver Haze, Ash, Autumn, Brindle, Buff, Harvest, Charcoal and Sunset

Ring Number	Diameter	l otal no. extra Cobbles required
I	1.83	75
2	2.11	129
3	2.39	191
4	2.67	262
5	2.95	341
6	3.23	429
7	3.51	525
8	3.79	629
9	4.07	742
10	4.35	863
11	4.63	992
12	4.91	1,130
13	5.19	1,276
14	5.47	1,431
15	5.75	1,594
16	6.03	1,756
17	6.31	1,945
18	6.59	2,133
19	6.87	2,329
20	7.15	2,534
21	7.43	2,747
22	7.71	2,969



Castlerigg Circle diagram for illustration purposes only.

ACCESSORIES

KERBS & CHANNELS

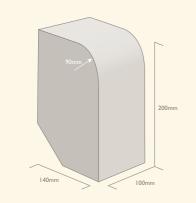
Q KERBS & B KERBS

The Q Kerb (or Quad Kerb)

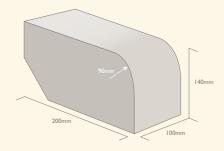
The Q Kerb is designed to have the necessary edging to support a paved area. It is available in 3 colours - Brindle, Charcoal and Red. Each pack contains 24 linear metres (10 pieces per metre -240 pieces per pack).

As the name suggests it can be used in 4 ways - High or Low - Bullnose (rounded) or Chamfered (bevelled).

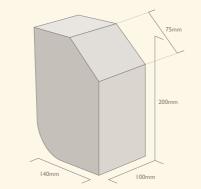
It is also possible to make steps from Q Kerbs.



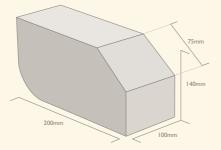
Q Kerb High Bullnose Position



O Kerb Low Bullnose Position



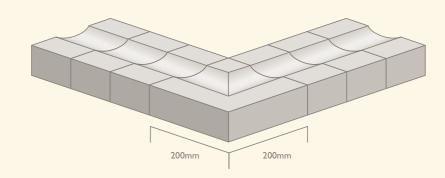
Q Kerb High Chamfered Position



Q Kerb Low Chamfered Position

Channels

A dished channel is available to remove excess water from a paved or any other area. Available in **Charcoal**. Each channel is 200mm x 200mm and the channel corners measuring 200mm x 200m allow a 90° turn.



Side Elevation Top Elevation

ACCESSORIES

CORNERS

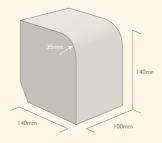
O KERBS

The B Kerb (or Bi Kerb)

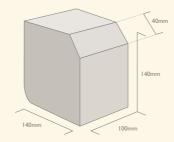
The B Kerb is designed to have the necessary edging to support a paved area. It is available in 4 colours - Autumn, Brindle, Charcoal and Red. Each pack contains 33.6 linear metres (10 pieces per metre - 336 pieces per pack).

As the name suggests it can be used in 2 ways - Bullnose (rounded) or Chamfered (bevelled).

It is also possible to make steps from B and O Kerbs.



B Kerb Bullnose Position

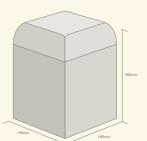


B Kerb Chamfered Position

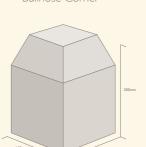
Rumbled O and B Kerbs

Also available are the Rumbled Q and B Kerbs to complement our range of Rumbled Pavers.

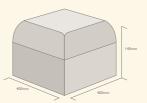
These are available in Brindle, Charcoal, Red and Original (Rumbled only).



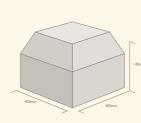
Q Kerb High External Bullnose Corner



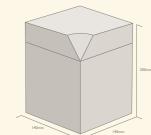
Q Kerb High External Chamfered Corner



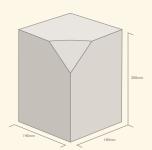
O Kerb Low External Bullnose Corner



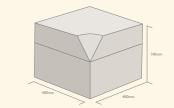
Q Kerb Low External Chamfered Corner



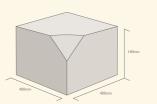
Q Kerb High Internal Bullnose Corner



Q Kerb High Internal Chamfered Corner

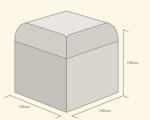


O Kerb Low Internal Bullnose Corner

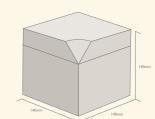


Q Kerb Low Internal Chamfered Corner

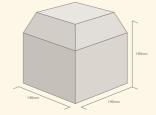
B KERBS



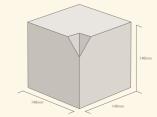
B Kerb Small External Bullnose Corner



B Kerb Small Internal Bullnose Corner



B Kerb Small External Chamfered Corner



B Kerb Small Internal Chamfered Corner

TECHNICAL INFORMATION

LAYOUT PATTERNS

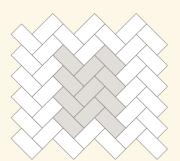
Patterns

The pattern used can have a considerable effect on whether the end product is a functional feature or striking addition to the property.

Imagination

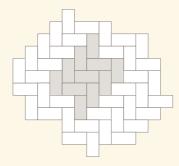
Combine different colours, or even products, to create a drive, path or feature that has your own personality.

45° Herringbone



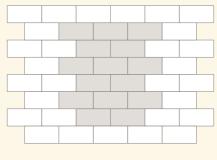
For the above use: Lakeland Driveway. Lakeland Inglestone.

90° Herringbone



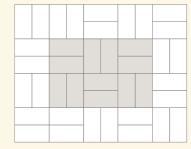
For the above use: Lakeland Driveway, Lakeland Inglestone.

Stretcher Bond



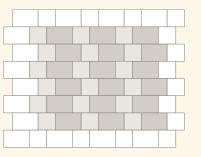
For the above use: Lakeland Driveway, Lakeland Inglestone.

Basket Weave



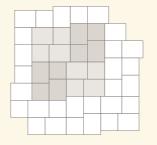
For the above use Lakeland Driveway, Lakeland Inglestone.

Dual Size Stretcher Bond



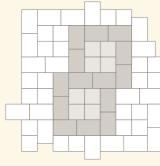
For the above use: lakeland Derwentstone® Lakeland Kendalstone.

Dual Size Offset Herringbone



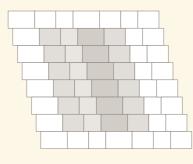
For the above use: Lakeland Derwentstone® Lakeland Kendalstone.

Dual Size Chequer



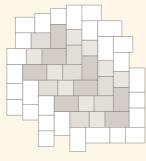
For the above use: Lakeland Derwentstone® Lakeland Kendalstone.

3 Size Stretcher Bond



For the above use: Lakeland Derwentstone®, including Lakeland Derwentstone® cobble, Labeland Kendalstone including Lakeland Kendalstone cobble.

3 Size 90° Herringbone



For the above use: Lakeland Derwentstone®, including Lakeland Derwentstone® cobble, Lakeland Kendalstone including Lakeland Kendalstone cobble.

Lakeland **INSTALLATION GUIDE**

INSTALLING BLOCK PAVING

Each new paving and patio project is unique and have their own challenges to overcome. This factsheet is a simple description of the key stages of installing concrete block paving and does not address all possible on site issues and scenarios. The stages here apply to both non-permeable and permeable paving although there are differences in the materials to be used - refer to "Factsheet 3 - Permeable Paving" for further details.

Stage | Preparation

Before work commences it is a good idea for the householder to make a simple design sketch of how they would like the paving to be laid out. This will help the contractor fulfil their clients' expectations and make an accurate assessment of material quantities. The areas can be marked out with string or a line of sand. A significant quantity of excavation spoil and waste will be generated during the installation which will need removing to a licensed disposal site and provision for this must be planned for.



Stage 2 **Excavation**

The area is cleared and dug out to 200 - 250 mm depth below the final paving level. Any weeds or roots should be dug out and removed at this stage and the application of weedkiller considered if the problem is particularly bad. The underlying ground (often referred to as the 'sub-grade' or the 'formation level') should be assessed for solidity and firmness. This will usually be consolidated by the compacted sub-base material but for a particularly poor conditions (soft, clay-like or patchy), a geotextile membrane can be laid which will help prevent the subsequent sub-base material from sinking when it is compacted down.



Stage 3 Edge restraints

At this point the edging courses (blocks or kerbs) should be installed on a 100 mm bed of concrete and set to the final height of the finished paving. Edging blocks perform the critical task of restraining the paving and preventing spreading when loaded by vehicles for example. The edging blocks should be sturdily haunched with concrete at their rear to keep them in position. If the edging blocks are butted against a wall then it is acceptable just to lay them on the 100 mm concrete base without the haunching.



Lakeland BRICKS & BLO

Lakeland **INSTALLATION GUIDE**

Stage 4 The laying course

Having determined the slopes and falls using the sub-base, a laying course of sharp sand is formed by compacting down to approximately 35 mm. A final layer of sharp sand 25 mm thick provides the final laying course which is carefully levelled and formed using screed rails and boards and smoothing trowels. This final layer is not compacted down until the blocks have been laid.

Stage 5 Block laying

Ideally commence laying full blocks off a solid edge, typically the building and continue from one corner or right angle in the pattern of choice. Any doorsteps or decorative features are commenced at this point.

Blocks should be carefully butted up to one another to hand-tightness. Place the blocks vertically downwards and avoid 'dragging' the blocks together as this will disturb the laying course and partially fill the joints with sharp sand. This will lead to problems when finally vibrating down the blocks. At this point the blocks should be around 5 mm proud of the final desired height.

Regardless of block type or shade, blocks from at least 3 packs should be selected and mixed to avoid 'banding' of colours and provide a better finished effect.

Stage 6 **Cutting in**

The use of cutting saws or block splitters will generate dust so eye protection, gloves and a suitable dust mask should be worn throughout throughout this stage of the operation. A hosepipe or sprinkler to suppress the dust is recommended good practice.

Careful planning should help avoid the need to cut thin slivers of block and the use of as full a block as possible is always the best option for optimum performance and aesthetics.





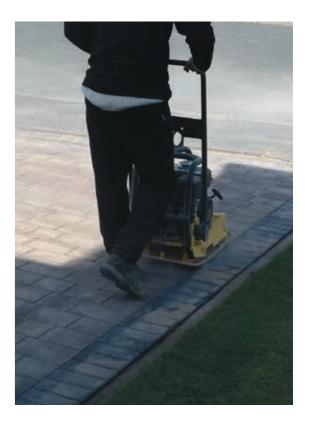
Lakeland **INSTALLATION GUIDE**

Stage 7 Jointing & compaction

This operation should only be carried out in fair weather when the paving surfaces and joints are dry. Kiln dried silica sand is spread across the paving using a broom to get into the joints. This helps the blocks to move against one another when being 'whacked down' using the vibrating plate and therefore avoid chipping and spalling blocks.

The final compaction is carried out using a vibrating plate compactor in several passes using alternating directions. The area must be swept before compaction to remove any stones and debris which could be pressed onto the blocks and cause damage. A rubber mat should be placed between the plate compactor and the paving to avoid damage to the blocks.

Following this stage the paving is now ready for use and kiln dried sand is again spread across the surfaces and brushed into all of the joints to top them up.



Ongoing maintenance and care

- Over the following 4 6 weeks, the paving will settle and the joints will need topping up again with kiln dried sand and seasonally thereafter.
- Efflorescence or 'lime bloom' appearing on the surface of concrete pavers is very commonplace but is harmless and will disappear over time. Regular dry brushing of the surface will help remove these salts.
- Use pressure washers carefully and only when necessary. Frequent vigorous pressure washing will remove the jointing sand and can gradually wear the block surfaces.
- Once all efflorescence has disappeared, which can be up to a year after laying, a paving sealant can be applied to preserve the paving, repel stains and enhance the finished appearance.

Technical and General Information

Development

Thomas Armstrong (Concrete Blocks) Ltd is continually developing its range of products and thus the contents of this brochure are subject to change without notice.

Efflorescence

In common with our other concrete products made with a high cement content our products may exhibit the temporary surface phenomenon of efflorescence. this may appear as a milky white stain on the face of the product or the appearance of the paver may be such that the colour has faded. This is in no way detrimental to the performanc of the product and responsibility cannot be accepted for its occurrence.

Colour and Texture Variations

The manufacturing process of concrete products may result in variations in colour and texture which are unavoidable. The amount a product is rumbled may vary from batch to batch and product to product.

To minimise variation it is recommended that products are ordered from the same batch and that products are mixed from at least three different packs where possible. The process of producing Rumbled Products may result in them being covered with a light dust. The dust will naturally weather off, alternatively pressure washing them will have a more instant effect. This should be done prior to filling the joints with dry sand. It is recommended that the appearance be judged by viewing established sites rather than individual samples.

Conditions of Sale

In the unlikely event that the products reach you in a less than satisfactory condition you should notify the retailer immediately. In addition to this, responsibility for costs incurred for uplifting and relaying unsatisfactory products may be prejudiced if, upon reasonable inspection, the defect ought to have been apparent before laying.

For further information call 01900 68114 or visit us at

www.thomasarmstrongconcreteblocks.co.uk

