

INSTALLATION GUIDANCE AND LAYING DIAGRAMS

Please Note

All Marshalls Driveway products in this brochure are designed for domestic vehicles only, they are not designed for commercial vehicles.

For more information contact Marshalls Customer Helpline 0345 820 5000

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Block Paving Products

- Take blocks from a number of packs to ensure correct colour blend
- Taking blocks from vertical columns rather than horizontal layers also ensures good colour blending
- Marshalls concrete block paving is manufactured in different factories across England, Scotland and Wales. Colour may vary slightly across these works of manufacture
- For **Marshalls Flexible Installation Guidelines** Contact Marshalls Technical Advisory Service 0370 411 2233

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Fairstone Magnasetts NEW Ethically Sourced Natural Stone

- Fairstone Magnasetts are an intentionally blended mix of stone. Significant variation between pieces can occur
- Magnasetts must always be installed on a full mortar bed 3:1 sand cement mix
- We recommend the use of a slurry based primer to be applied to the back of the Magnasett to gain maximum adhesion to the mortar bed such as Instamatic Pro Prime Slurry Primer
- Jointing to be cement based 4:1 sand cement mix
- Fairstone Magnasetts are an intentionally blended mix of stone. Significant variation between pieces can occur

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Fairstone Setts Ethically Sourced Natural Stone

- Fairstone Natural Stone is carefully hand selected stone with acceptable natural colour variation to ensure compatible colour and a premium look
- A broad range of sizes and finishes will help create a truly individual look
- Fairstone Natural Stone Paving (p.26-47) Fairstone Steps (p.40) and Fairstone Walling (p.86-89) are also available to achieve a co-ordinated natural stone look
- For pathways and edging, smaller quantities can be ordered (minimum amount is 1 square metre). This service is called 'Order Select'. For full details see p.190. For kerbs please see p.172-175
- Fairstone Sawn and Tumbled Setts** should be laid on screeded sand with a kiln dried sand joint width of 3-5mm
- Fairstone Driveway Setts** should be laid on a mortar bed of 25mm and pointed with a minimum 10mm mortar joint

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Drivesys Patented Driveway System

It is essential that the 'Drivesys Installation Guide' is followed, to order a copy call the Marshalls Helpline on 0345 820 5000.

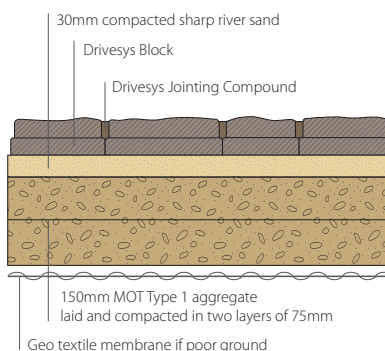
It is recommended that Drivesys is installed by a Marshalls Register Member.

Drivesys blocks have a patented base design which allows the products to be laid as you would traditional block paving, providing Drivesys Jointing Compound is used.

Driveway Construction:

Once installed, compact blocks using a vibrating plate with a neoprene (rubber) mat before jointing. Failure to do this will result in damage to the face of the blocks. Drivesys is designed to be laid in random courses for structural stability.

Jointing: Drivesys Jointing Compound must be used to ensure structural stability. As with other jointing products, Drivesys Jointing Compound is guaranteed for a period of 12 months, or 2 years if the customer has purchased a Marshalls Register Hard Landscaping Guarantee.



Installation notes:

Drivesys jointing material must always be used with Drivesys Driveway Systems to ensure structural stability.

- Always use a vertical edge restraint, to restrain the drive**
- Always construct the sub-base in 2 layers of 75mm MOT Type 1. Each layer must be thoroughly compacted

In all cases compact the first layer of sand, then screed remaining layer to achieve finished laying course.

- The ideal depth of sharp river sand is 30mm. In all situations no more than 40mm should be used. Failure to follow will result in the installation being compromised
- On all occasions take blocks from a minimum of 3 packs (6 for multi-coloured product) to the laying face
- Compact Drivesys blocks using a rubber protection mat, BEFORE any jointing compound is introduced onto the blocks. Failure to do so will result in face marking of the blocks
- Partially wet blocks with a light spray of water, then brush jointing compound into joints diagonally using a stiff brush. Top up any hungry joints

IMPORTANT

- Use light water spray and a soft brush to remove excess jointing compound from the surface profile of the blocks as it is extremely difficult to remove once curing commences

PLEASE NOTE:

- Drivesys blocks come with a protective transportation seal which will remain slightly slippery underfoot until weathered
- Once protective seal has dissipated the block may take on a lighter appearance
- The correct amount of jointing compound is supplied with every pack of Drivesys

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Drivesys Edging Driveways

There are two ways to install Drivesys Edging:

1. Install the edge restraint so one third is encased in concrete and haunched. The block can then be installed with the edging standing proud.
2. Install the edge restraint into a concrete footing and haunch making sure the level of the top of the edging is flush with the adjoining blocks.

Further Guidance on installation can be found in the Drivesys Installation Guide, call Marshalls helpline on 0345 820 5000



Page 132 / 133 Drivesys Split Stone

Page 134 / 135 Drivesys Riven Stone NEW

Page 136 / 137 Drivesys Original Cobble

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Drivesett Argent PRIORA

For PRIORA Driveways see page 180 / 181

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Drivesett Argent Driveways

- Mixed size packs contain the correct proportion of sizes, for less wastage
- A rubber-faced vibrating plate should be used
- For co-ordinating paving and walling, (see p. 70-71 and p. 94-95)
- You can buy less than full pack quantities if required – minimum quantity is 1 layer (approx. 1m²) of mixed sizes (see 'Order Select' p.190)
- For co-ordinating kerbs and edgings (see p. 172-175)
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000
- When cutting the blocks as outlined in Marshalls Flexible Installation Guidelines, it is important to make sure that once cut with water the block has been perfectly cleaned before installing

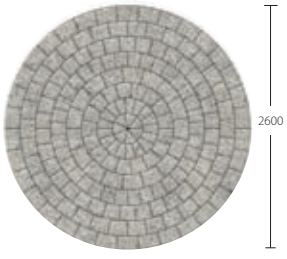
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Drivesett Argent Circle

- Contains all the blocks you'll need for a circle 2.6m diameter
- Detailed laying instructions in every pack
- Some cutting may be required for best results
- Kiln dried joint filling sand is recommended (see p.175)
- For co-ordinating kerbs and edgings see p.172-175
- Never cut whilst the block is in-situ with water, doing this will permanently stain the surface.
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000
- When cutting the blocks as outlined in Marshalls Flexible Installation Guidelines, it is important to make sure that once cut with water the block has been perfectly cleaned before installing

HOW TO USE: Each header shown is the product page you have been looking at. Use this to locate the correct diagram. The diagrams and dimensions will assist as laying guide

P 142 / 143 Drivesett Argent Continued Circle



Light (LT)
Dark (DK) and Graphite (GR) are also available

P 144 / 145 Drivesett Tegula PRIORA

For PRIORA Driveways see page 180 / 181

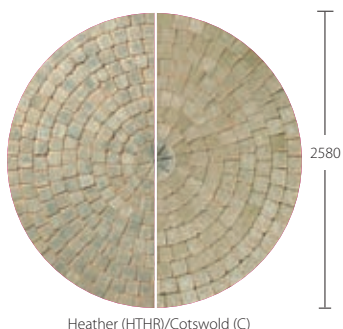
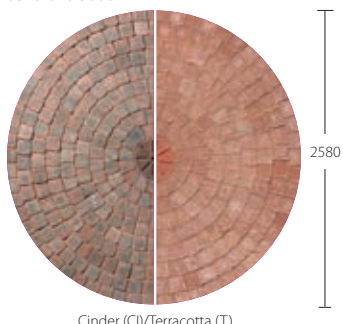
P 146 / 147 Drivesett Duo Driveway & Circle

Drivesett Duo Block Paving

- 3 block sizes means Drivesett Duo can be laid in random courses
- Suggested blend of sizes is a random mix of 13 large, 18 medium and 3 small blocks per square metre
- Each pack contains blocks of 1 size only. Blend blocks from a number of packs to ensure correct colour blend
- You can buy less than full pack quantities if required – minimum quantity is 1 square metre (See 'Order Select' p.190)

Drivesett Duo Circle

- Contains all the blocks you'll need for a circle 2.58m in diameter
- Detailed laying instructions are included in every pack
- Some cutting may be required for best results
- Each circle pack contains a centre stone of each colour
- Standard units may be used to extend the circle
- Kiln dried joint filling sand is recommended (see p.175)
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000



P 148 / 149 Drivesett Tegula Original

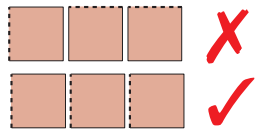
- Perfect for driveways, patios and pathways
- Optimum mix for 3 size random course is 13 large, 18 medium and 3 small blocks per square metre (other mixes will work satisfactorily)
- Jumper blocks 320 x 240 and 240 x 240 blocks are designed to be randomly added to driveways of 3 block sizes or used in 240 gauge rows
- Mix blocks from a number of packs to ensure the correct colour blend
- Blocks are supplied shrink-wrapped. Each pack contains blocks of 1 size only
- Kiln dried joint filling sand is recommended (see p.175)
- For co-ordinating channels, kerbs and edgings (see p.172-175)
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 160 x 160 | 320 x 240 | 160 x 120 | 160 x 160 | 160 x 240 |
| 160 x 240 | 160 x 240 | 160 x 120 | 160 x 120 | 160 x 160 |
| 240 x 160 | 240 x 240 | 240 x 320 | 240 x 240 | 240 x 160 |

P 150 / 151 Drivesett Tegula Original Project Packs

- Please note Drivesett Tegula Project Packs are designed to be used on their own. Project Packs will not blend with single sizes or Drivesett Tegula Accessories**
- Packs contain a mixture of 240 x 160 x 50mm, 160 x 160 x 50mm and 120 x 160 x 50mm blocks which will cover 9.728m²
- Project Packs should not be used with Drivesett Tegula Original single sizes, Circles or Octants, because colour and finish may not match
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000
- Mix blocks from a number of packs to ensure the correct colour blend
- Taking blocks from vertical columns rather than horizontal layers ensures good colour blending
- Kiln dried joint filling sand is recommended (see p.175)
- Jointing sand should be used before the initial vibration and rubber-faced matting on the vibrating plate should be used
- You can buy less than the full pack quantities if required – minimum quantity is 1 square metre (see 'Order Select' p.190)
- For co-ordinating kerbs and edgings (see p.172-175)
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000

P 152 Drivesett Deco Driveways

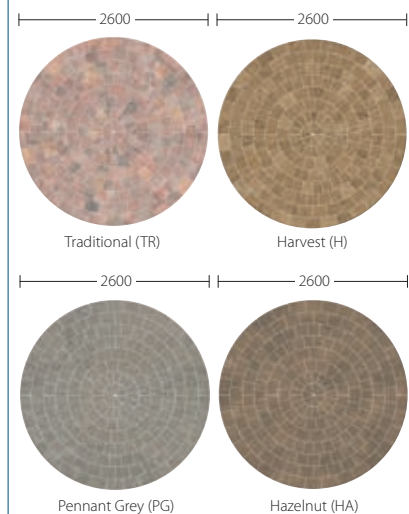


- One edge is grooved. To ensure an even course width, the blocks should always be laid with the grooved edge facing the same way
- Kiln dried joint filling is recommended (p.175)
- You can buy less than full pack quantities if required – minimum quantity is 1 square metre (See 'Order Select' p.190)
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000

P 153 Drivesett Circle and Octant

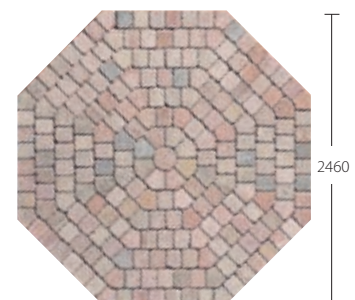
Drivesett Circle

- Drivesett Circle is 2.6m in diameter. See table page 153
- Bigger circles can be constructed using Drivesett Tegula Original Block Paving starting with small, then medium size blocks
- Detailed laying instructions are included in every pack
- Some cutting may be required for best results



Drivesett Octant

- Contains all the blocks you'll need for an octant 2.46m diameter across flats
- Simple to lay as no cutting is required
- Drivesett Octant is 2.46m diameter across the flats. See table on page 153



INSTALLATION GUIDANCE AND LAYING DIAGRAMS

PAGE
154-155

Drivesett Natrale
Driveways

- Mix blocks from a number of packs to ensure the correct colour blend
- Taking blocks from vertical columns rather than horizontal layers ensure good colour blending
- Kiln dried joint filling sand is recommended (see p.157)
- Jointing sand should be used before the initial vibration and rubber-faced matting on the vibrating plate should be used
- You can buy less than the full pack quantities if required – minimum quantity is 1 square metre (see ‘Order Select’ p.190)
- For co-ordinating kerbs and edgings see p.154-157

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Drivesett Savanna
Driveways

- Mix blocks from a number of packs to ensure the correct colour blend
- Taking blocks from vertical columns rather than horizontal layers ensure good colour blending
- Kiln dried joint filling sand is recommended (see p.175)
- Jointing sand should be used before the initial vibration and rubber-faced matting on the vibrating plate should be used
- For co-ordinating kerbs and edgings see p.172-175
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000

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Driveline Metro
Driveways

- Lay on standard driveway sub-base
- 80mm block depth will guarantee structural integrity
- Kiln dried joint filling sand is recommended (see p.175)
- Jointing sand should be spread across the surface before the initial vibration using a rubber-faced vibrating plate
- Four colour options permit numerous unique designs eg:



- Mix blocks from a number of packs to ensure the correct colour blend
- Taking blocks from vertical columns rather than horizontal layers ensure good colour blending
- For co-ordinating kerbs and edgings see p.172-175
- When cutting the blocks as outlined in Marshalls Flexible Installation Guidelines, it is important to make sure that once cut with water the block has been perfectly cleaned before installing
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000

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Driveline Elise
Driveways



Driveline Elise is 50% bigger than most standard block paving

- Driveline 50 (p.164) complements this product perfectly, making the ideal edging or feature
- For matching channels, kerbs and edgings see p.172-175
- Kiln dried joint filling sand is recommended (see p.175)
- Jointing sand should be used before the initial vibration and rubber-faced matting on the vibrating plate should be used
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000

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Driveline PRIORA

For PRIORA Driveways see page 180 / 181

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Driveline 50
Driveways

Driveline 50 Block Paving

- Deep, rich colour right through the block
- A wide range of colours make it easy to blend together and create new patterns and designs with many other types of paving
- Take blocks from a number of packs to get a multi-shade effect, colour blending can also be ensured by taking blocks from a vertical column rather than a horizontal layer
- Lay as a flexible installation. For further guidelines call Marshalls helpline on 0345 820 5000

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Bioverse
Paving System

- Reinforces naturally draining soil, enhancing load capacity, making it ideal for occasional car parking spaces
- Deals with rainfall run-off in a sustainable way and does not require planning permission
- Bioverse allows grass to grow through the blocks providing a green option for parking
- Optimised Bioverse Grass binds the slabs and base materials together to progressively improve structural strength and loadbearing. To find out more about Bioverse Grass Seed visit www.rigbytaylor.com or call 0800 424 919.
- For more details see page 116

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Bioverse Continued
Paving System







Rotate modules for maximum random effect



Bioverse Optimised Grass Seed

Designed to create a dense and attractive appearance, Bioverse optimised Grass Seeds are:

- Environmentally responsible, with high CO₂ lock up
- Low growing and has slow growth patterns, reducing surface wear and making them ideal for Bioverse driveways
- Designed with a high plant density, to restrict invasion of weeds and alien grasses

Bioverse Grass Seeds are individually matched to different growing conditions throughout the UK. You can identify the best seed for you in the diagram. To order Seed visit www.rigbytaylor.com or call 0800 424 919.

Extra care must be taken when walking over Bioverse areas in high heels.

| Area of UK | Seed type |
|------------|-------------|
| North | Bioverse GN |
| South | Bioverse GS |
| East | Bioverse GE |
| West | Bioverse GW |



For Bioverse information and guidelines please visit Marshalls website at: www.marshalls.co.uk/homeowners

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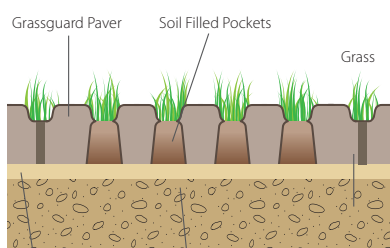
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Grassguard Permeable Paving

- Reinforces naturally draining soil, enhancing load capacity, making it ideal for occasional car parking spaces
- Deals with rainfall run off in a sustainable way and does not require planning permission
- The Grassguard grid allows grass to grow through the blocks providing a green option for parking
- Seed with tough, coarse rye grass which, as it grows, binds the slabs and base materials together to progressively improve structural strength and loadbearing
- For more details see page 167



Grass grows in the soil filled cavities



- Easy to lay with recommended sub-base of 150mm of compacted quarry waste or similar unwashed material, 75mm of which contains fine soil or loam
- The carefully calculated sub-base will maintain growth during dry periods, although grass may brown
- A fine soil or loam with a peat mixture or proprietary compost should be poured into approximately 30mm below the top surface of the slabs
- Extra care must be taken when walking over Grassguard areas in high heels

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Channels & Drainage

- Can be used to channel water to soakaway within the property boundary in line with Government legislation
- Blends well with block paving and other surface materials
- Should be laid on a rigid concrete bed at least 100mm thick
- Driveline Channel is supplied shrink wrapped
- Can be used to achieve a well balanced garden design

Linear Drainage Channel

- Recommended for every non-permeable paved driveway at the junction of driveway and public footpath

Inset Manhole Cover

- Recommended within domestic driveways paths and patios for the best domestic result
- Available from local Builders' Merchants

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Marshall's Kerbs

- Supplied shrink wrapped
- Tegula Kerb has a 45° splay to one 130mm face
- Smallest radius for an internal kerb is 0.46m
- Smallest radius for an external kerb is 0.62m
- Use standard Tegula Kerb with Radial Tegula Kerbs to create the desired curve

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Keykerb

Keykerb®

- When laid KL protrudes by 100-125mm; KS by 25-50mm
- Keykerb Blocks are shrink wrapped

Please Note

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For more information contact Marshall's Customer Helpline **0345 820 5000**

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Standard Block Paving

- Standard 200 x 100mm concrete block paving
- 50mm coloured concrete block paving suitable for driveways, paths or patios
- Robust enough for normal pedestrian and domestic vehicle use
- Standard Block Paving is made in different factories in England, Scotland and Wales therefore variations in colour and tone may occur
- It is recommended that you mix blocks from different packs to minimise shade differences and achieve optimum colour blend (see p.175)
- Kiln dried joint filling is recommended
- Lay as a flexible installation. For further guidelines call Marshall's helpline on 0345 820 5000

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Drivegrid

- In all cases use an edge restraint, fill with angular gravel 5-16mm
- A 10-20mm layer of angular gravel (5-16mm) must be spread on top of the finished cell height
- There is no need to compact
- 1 complete tonne of gravel will cover approximately 14-17m² depending on density
- Marshall's recommends the use of a driveway entrance strip for looks and stability
- 12 month guarantee only
- Marshall's Register Guarantee is not available for this product

Further assistance is available from Marshall's Helpline **0345 820 5000**

For more technical advice please contact our Technical Advisory Service **0370 411 2233**

INSTALLATION GUIDANCE AND LAYING DIAGRAMS

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Priora® Patented Permeable Paving Systems

Instructions common to all Priora Driveway Products featured

- Each 60mm block features the Marshalls unique patented 'Priora' nib design which allows surface water to pass between blocks into a specially calculated sub-base without compromising the structural performance of the driveway
- Drains water away safely in heavy rainfall without becoming a burden to the local drainage system
- Can help preserve the local water table by rehydrating ground prone to droughts
- If installed with the correct sub-base this permeable paving solution can be used in a front garden without obtaining planning permission

Priora IMPORTANT Installation Note

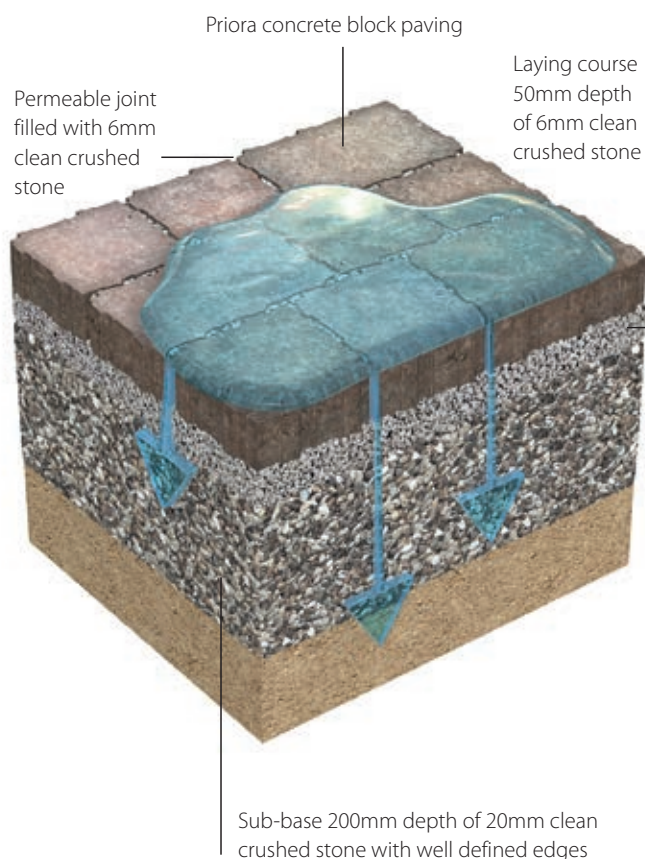


The Priora System should not be attempted by the DIY enthusiast or untrained installer. It requires the careful calculation of a soil permeability test and appropriate use of specially graded sub-base aggregates.**

Should an installer wish to undertake training for the installation of this product please call the Marshalls Helpline on 0345 820 5000 for further information.

Visit the Marshalls website to find your nearest Marshalls Register Installers trained to install Priora Systems, or call 0345 820 5000.

***See Conditions and Guidelines for use on p.181*



- **Drivesett Tegula Priora** blocks are designed to be laid in a coursed laying pattern (supplied in packs). Ratio per square metre; 3 small, 12 medium, 16 large. See pages 144-145
- **Drivesett Argent Priora** blocks are designed to be laid in a coursed laying pattern (supplied in pack). See pages 138-139
- Supplied in mixed packs of 3 sizes meaning less wastage and potential cost savings
- **Driveline Priora** is supplied in single size packs and can be laid in herringbone. See pages 162-163



Marshalls Register Installers who require Priora installation training should initially call 0345 820 5000 or contact the Marshalls Register

*Advice is available from the Technical Advisory Service on 0370 411 2233 should you require a more detailed discussion on the intended use of the area.

Priora® Conditions and Guidelines for Use

CONDITIONS REQUIRED FOR PRIORA

The grade of Priora featured in this brochure is only intended for normal domestic vehicles and pedestrian traffic, though occasional delivery vehicles over 3.5 tonnes gross weight can be tolerated.*

The Domestic Priora System is only intended for driveways or paths where infiltration is required only in the immediate Priora paved area and not from other surrounding paved or roofed areas (see rainwater catchment area guideline opposite).

In some parts of the country there are ground conditions where infiltration could adversely affect foundations to houses, therefore, if in doubt seek advice from a specialist or the local authority building control department.

Properties constructed pre 1920 may not have been built on traditional concrete foundation, therefore in this case, Marshalls Domestic Priora System should not be installed.

Check for services, Priora must not be installed if gas or electric services run through intended Priora areas.

*Priora is a trademark of UNI-International Bausysteme GmbH

GUIDELINES FOR INSTALLING PRIORA

Surface Gradient

The intended Priora area must fall away from the owner's house and any other buildings in the immediate vicinity.

If the driveway exceeds 20m in length and/or has a gradient greater than 1 in 100 then please contact Marshalls Technical Advisory Service.*

The top surface of the driveway should finish at least 150mm below any adjoining wall DPC level.

Existing Foundations

If your house lies adjacent to or less than 600mm from the proposed Domestic Priora driveway area, establish depth of house foundation before undertaking any soil test/Priora installation. The house foundation top surface must be 600mm (minimum) below the finished level of the top of the proposed Priora driveway.

Soil Strength and Permeability

Marshalls Domestic Priora System must be laid on a subgrade which has previously had an established and adequate existing driveway and an area which has a subgrade soil strength greater than 5%.

The Domestic Priora System is only suitable for soil areas where infiltration applies and the test criteria have been met as per the standard permeability test.

For the standard permeability a test hole should be dug for every 20m² of driveway. There should be a minimum of two holes. Holes/pits should be spaced evenly in relation to the proposed Priora area.*

Discharge onto Roadway

The Domestic Priora area must not discharge onto surrounding public roadway and pathways and towards any buildings.

Rainwater Catchment Area

No adjoining surface areas (rainwater pipes, roof areas, etc) must drain onto and into the proposed Domestic Priora driveway area, however, small areas such as door steps and garage areas are acceptable providing they do not exceed 5% of the driveway area.

Guideline: Catchment area **= driveway area

**Catchment area = drained surface area

Aggregates

Priora must be laid with 20mm and 6mm clean crushed stone aggregate to BS EN13242 and BS EN12620 to ensure compliance.

| Properties | BS EN13242 & 12620 Specification |
|----------------------------------------------------------|----------------------------------|
| Grading | |
| Fines content | f ₄ |
| Shape | F ₃₀ |
| Resistance to fragmentation | LA ₃₀ |
| Durability | |
| - Water abs to BS EN1097-6: 2000, Clause 7 | WA ₂₄ 2 |
| - For WA ₂₄ ≥2%, magnesium sulphate soundness | MS ₁₈ |
| Resistance to wear | M ₁₀ 20 |
| Acid-soluble sulphate content | AS ₀₂ |
| Total sulphur | ≥ 1% by mass |

Trees

When installing in close proximity to existing trees, tree roots smaller than 25mm diameter may be pruned back, preferably to a side branch, using a suitable pair of secateurs or hand saw. Roots larger than 25mm should only be severed following consultation with an arboriculturist, as they may be essential to the tree's health and stability. Protection of the pavement will also be required, hence the requirement of a permeable root barrier system such as the Geoweb bio barrier system (www.Fiberweb.com) or similar which is non surface protruding, and therefore, does not present a trip hazard once installed.

Health and Safety

It is possible that more excavation for a Priora driveway may be required than that of a driveway constructed of traditional block paving, therefore, care must be taken when excavating ground to a deeper level. Particular care must be taken to protect the sites from children and partially sighted persons and for collapse of adjoining features such as boundary walls/fences.

Check for services, if they run through intended Priora areas, the service provider must be consulted before work commences.

Care must be taken when constructing over sewer, rainwater pipes and water pipes to ensure that the services remain supported for their full length by undisturbed material and are surrounded on the remaining sides by a minimum of 150mm of 6mm material to protect the service.