



**APPLICATION FOR DISCHARGE OF PLANNING CONDITION(S)
FOR PROPOSED BARN CONVERSIONS AT,
MOOR LANE, BIRDWELL,
BARNLEY, S70 5TY.**

MATERIALS SCHEDULE

**JAN 2020
REF: 1707MS1**

E: jealtd@btconnect.com T: 01226 754507 M: 07944 977439.

**Application for discharge of Planning condition(s), Proposed Barn Conversions
(Hangman) Stone Bar Farm, Moor Lane, Birdwell, Barnsley, S70 5TY.**

**JAN 2020
1707MS1**

MATERIALS SCHEDULE

This schedule has been prepared to support our application for discharge of planning conditions in relation to application ref: 2019/0522, that was permitted on 12th August 2019 and particularly Condition No; 5 of said decision.

1.0 ROOFS

UNITS 1,3 AND 4 NATURAL BLUE/GREY SLATE. SEE ATTACHED SUPPLIERS
INFORMATION IN APPENDIX A.

UNIT 2 EXISTING NATURAL SANDSTONE SLATES RECLAIMED FROM SITE.

2.0 WALLS

ALL UNITS EXISTING NATURAL STONE WALLS THROUGHOUT.

3.0 EXTERNAL WORKS

DRIVE/ACCESS MARSHALLS TEGULA PRIORA. SEE ATTACHED MFRS INFO IN
APPENDIX B. MIXED SIZES. "TRADITIONAL" COLOUR.

PATHS/PAVINGS MARSHALLS HERITAGE PAVINGS IN "OLD YORKSTONE".

Signed.

J E Architectural Ltd.

For Mr S Woodruff

APPENDIX A

SLATE SUPPLIERS INFORMATION

The Heritage Grey slate is extracted and finished in the vicinity of the town of La Bana in the province of Leon in north western Spain.

This seam, as is the case with the vast majority of Spanish slate is from the Ordovician period of approximately 500 million years ago; despite the rugged terrain, scorching summers and freezing winters, Leon still manages to provide some of the finest slate in the world.



The Heritage Grey is a dark grey slate with a blue hue, it has a lightly textured surface and a small number of absolutely stable pyrites, it's a slate with a very good planimetry, so much so that the versatility of the seam permits a vast array of sizes to be exfoliated and produced with relative ease, especially the larger sizes which many quarries find extremely difficult to provide.

The Heritage Grey is available in 5-7mm normal thickness, 7-9mm Forte and 11-17mm Extra Forte for climates with very high and prolonged snow fall.

Formats such as Gothic, Rounded, Halfmoon, as well as the traditional rectangular are all available, as are sizes up to 900mm x 600mm in the Extra Forte and Forte range.

There are few slates in the UK market, in fact any market, which one can be absolutely certain that once they have been fitted to the roof structure will last well over the lifetime of the building itself, this ladies and gentlemen is one of those few slates; there is the odd pyrite inclusion here and there however these are perfectly stable; there will be no discolouration of the slate nor will delamination or splitting occur.

One of the many advantages of using this slate is in the fitting process where an acceptable level of on-site grading is required, making this an ideal choice for projects where budgetary considerations or time constraints are a genuine determining factor whilst still using a slate of excellent quality and characteristics.

Test	Results obtained
Water absorption	A1 (0.19 %)
Exposure to Sulphur Dioxide (SO ₂)	S1
Thermal cycle	T1
Non Carbonate carbon content	0.26% (≤ 1.5 %)
Calcium Carbonate content (CaCO ₃)	0.04% (≤ 1.5 %)
External fire performance	Deemed to satisfy
Reaction to fire	Deemed to satisfy, class A1
Release of dangerous substances	None in specified conditions of use.
Mechanical resistance (MoR) Longitudinal	52 MPa
Mechanical resistance (MoR) Transversal	51 MPa

Results obtained from testing samples according to the EN 12326-2: 2000. Slate and stone products for discontinuous roofing and cladding – Part 2: Methods of test.

Pre fitting .

Natural slate should be handled with care for health and safety reasons as well as keeping waste to a minimum.

The vast majority of slate being imported into the UK arrives preholed, the hole is punched from the back of the slate so as to create a countersunk effect on the front for the nail head to conveniently sit in; un holed or blank slates are available to special order which would be advisable for hook fixing or in the event that you should wish to hole the slates yourselves. In order to ensure best practice we recommend the following procedures:

Prior to fitting, the slates should be sorted into different thicknesses, (Usually but not always, the number of different thicknesses depends greatly on the grade of slate purchased, the higher or superior the grade the less sorting required; However this is entirely dependant on the type of seam / stone and how easily the blocks can be split into individual roofing slates, which is a different criteria altogether than the actual composition of the slate and how well it can perform as a roofing material) the thinner slates will be laid at the ridge, the thicker ones at the eaves of the roof with the gradually thinner slate making their way to the ridge.

Bowed or twisted slates should be set to one side and used for valleys, chimneys or eaves.

Load out the slates on the roof with the thickest slates on the lowest courses.

Fixing options:

Throughout the UK slate fixing is traditionally carried out with nails, these must be copper, aluminium or in extremely corrosive or coastal areas silicon bronze.

The diameter of the nail head should be at least 10mm, the diameter of the nail shank should at least 3mm and jagged, in high wind areas a ringed shank is recommended so as to prevent the nail from pulling out of the baten.

Hook fixing is far more popular in mainland Europe, it has many distinct advantages over nail fixing, firstly labour and fitting time savings are in the region of 20% to 30%, considerably lower pitches are possible with hooks as well as considerable freedom in roof design, greatly reduced breakages during fitting and very importantly greater resistance to wind uplift. Hooks must be stainless steel, 18/10 or 316 in coastal areas, 2.7mm diameter nail-in-hooks thereby complying with BS 5534.

Lead staining.

Lead, when damp or wet will develop a white carbonate which, if it washes over slates will cause unsightly staining. To prevent this reaction marring the newly fitted roof, we advise treatment with patination oil of all leadwork including soakers and flashings before any rain occurs.

Wind load and weather resistance.

Slate fitted within the guidelines provided will have adequate resistance to wind uplift, load and rain penetration. Further detailed guidance is provided in BS5534:2003 and BS6399, parts 2: 1997 and 3: 1998

Certification of slate.

July 2004 saw the introduction of the EN 12326-1:2004, the European standard for Slate and Stone Products for Discontinuous Roofing, thereby replacing the various standards across Europe and also the previous British standard for roofing BS680.

The standard itself is comprised of a series of tests conducted under controlled conditions which help determine the parameters of products (in the case of roofing slate, amongst other things it will determine the minimum thickness of slate required for each individual country based upon the results obtained from the various tests) intended to be used in the various countries in Europe, and also for which purposes those products may be used, again dependent on the results obtained in testing.

Manufacturers claiming conformity with the product specification are obliged to submit their product to the relevant testing and make the results available in a report officially known as the Accompanying Commercial Document.

Health and Safety Statement.

- The product in question is natural roofing slate to be used as a weathering seal for roofs and wall claddings.
- This slate is extracted from a single mountain site in Galicia, north west Spain originating from the Ordovician period, slate is composed of various minerals such as quartz, sericite, chlorite, feldspar and calcite.
- If dust is inhaled in excessive quantities over many years during the manufacturing process it can, without proper controls, possibly create a long term health hazard.
- In the context of site work the only potential hazard is sharp edges and splinters.
- Precautions to be taken in areas of restricted ventilation are dust masks and eye protection during cutting.
- Wear gloves during handling to avoid slate splinters and knee protectors during fixing.
- Store pallets no more than two high.
- For further information on this subject please contact the Health and Safety Executive on www.hse.gov.uk

Health and Safety Executive (Construction division)
Rose Court, 2 Southwark Bridge
LONDON SE1 9HS
Fax: 020 7556 2109
www.hse.gov.uk



Iconic Slate Ltd TA Galex

Exclusive clay and slate products

Slate coverage table.

Slate size mm	Head lap mm								
	75mm	80mm	85mm	90mm	95mm	100mm	105mm	110mm	115mm
600x300	12.5	12.6	12.7	12.9	13	13.1	13.2	13.4	13.4
500x300	15.4	15.6	15.8	16	16.2	16.4	16.6	16.8	17
500x250	18.5	18.7	18.9	19.1	19.4	19.6	19.9	20.1	20.4
460x225	17.5	17.7	18	18.2	18.5	18.7	19	19.3	19.6
400x250	24.1	24.5	24.9	25.3	25.7	26.1	26.6	27	27.5
400x200	30	30.5	31	31.5	32	32.5	33.1	33.6	34.2

Minimum recommended head lap

Slate size mm	Minimum raft pitch – Severe exposure (56.5 L/M2 or greater per spell)								
	20°	22.5°	25°	27.5°	30°	35°	40°	45°-75°	85°
600x300					100	90	80	70	
500x300		130	120	110	100	90	80	70	
500x250					100	90	80	70	65
460x225					100	90	80	70	65
400x250					100	90	80	70	65
400x200					100	90	80	70	65

Slate size mm	Minimum raft pitch Moderate exposure (Less than 56.5 L/M2 per spell)								
	20°	22.5°	25°	27.5°	30°	35°	40°	45°-75°	85°
600x300			95	85	80	70	60	55	
500x300	115	105	95	85	80	70	60	55	
500x250			95	85	80	70	60	55	50
460x225					80	70	60	55	50
400x250					80	70	60	55	50
400x200					80	70	60	55	50

For technical assistance or indeed to find your local stockist if you don't already have their details please contact us on info@galex.co.uk



APPENDIX B

BLOCK PAVING DETAILS

Tegula Priora 240 x 160 x 80

Date Created: 07/02/19



Tegula Priora -
Traditional



Tegula Priora - Red
And Charcoal Multi



Tegula Priora -
Burnt Ochre



Tegula Priora -
Harvest



Tegula Priora -
Pennant Grey

*Natural products are manufactured from aggregates sourced locally to the works and contain no pigmentation, therefore colour variation between products from different works is possible.

Marshall's' market-leading Priora permeable paving has been proven over 10 years of successfully installed projects. Tegula Permeable Paving is a lightly weathered, multi-size, SuDS-compliant surfacing solution, ideal for use in rural, rustic projects.

The traditional sizes create a classically British aesthetic that suits civic and residential developments alike. Each unit features the unique, patented Priora nib which ensures that surface water drains straight into the specially prepared sub-base, leaving the paved area clean, safe and puddle-free. The nibs also interlock to enhance surface stability.

Tegula Priora is available in 5 different colours and 3 different plan sizes to enable a variety of laying patterns to be created. As long as the sub-base is installed to Marshall's specification, Tegula Priora is suitable for all loading requirements.

DESCRIPTION

Appearance	Solid unit with integral spacers intended to create 6mm drainage apertures
Manufacturing Process	Semi dry pressed & vibrated concrete
Base Raw Material	Concrete
Governing Manufacturing Standards	All data where relevant to be established in accordance with BS EN 1338 : 2003
CE Marking/DOP	https://www.marshall's.co.uk/dop
NBS Specification	Q24 115



Tegula Priora 240 x 160 x 80

Date Created: 07/02/19

PHYSICAL PROPERTIES

Tolerances	Minimum (mm)	Maximum (mm)
Length	238	242
Width	158	162
Thickness	77	83
Work Dimensions (mm)	240 x 160 x 80	
Nominal Dimensions (mm)	240 x 160 x 80	
Tolerances on Work Dimensions (mm)	Length ±2mm, width ±2mm, thickness ±3mm	
Abrasion Resistance (mm)	≤ 23mm (Wide Wheel Abrasion Test)	
Durability (Freeze-thaw)	≤ 1.0 kg/m ² as a mean with no individual value > 1.5 kg/m ²	
Material Density	2300 kg/m ³ (typically)	
Slip/Skid Resistance (polished)	Mean polished skid resistance value (PSRV) : > 45	
Slip/Skid Resistance (unpolished)	Mean unpolished skid resistance value (USRV) : > 45.	
Thermal Conductivity (K value)	Design data as defined in BS EN 13369 : 2013	
Tensile Splitting Strength	Characteristic tensile splitting strength not less than 3.6 MPa. None of the individual results shall be less than 2.9 MPa, nor have a failure load less than 250N/mm of splitting length	

SPECIFICATION

Approx unit weight (kg)	7
Emission of Asbestos	No content
External Fire Performance	Deemed to satisfy. See commission decision 2000/553/ECU
Reaction to fire	Class A1, see commission decision 2000/605/EC

SUSTAINABILITY

Breeam	These units can achieve an "A" rated system when used in conjunction with the correct sub-base components
Carbon Footprint	22 kg CO ₂ m ²

APPLICATION

Loading Classification	Category 9 - 4 to 8 msa
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SITE WORKS

Coverage	17 no per m ²
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SUPPLY

Av. pack size (m ²)	7.7
Av. pack weight (kg)	1444
Packaging	All packs are shrinkwrapped onto pallets for fork off-load or crane off-load if necessary

FURTHER INFORMATION

Cleaning & Maintenance	Cleaning & maintenance details are available on request
Efflorescence	Any product containing cement during its early life may exhibit a temporary white discolouration known as efflorescence. This is not a product fault and will gradually disappear with exposure to natural weathering and trafficking
Weathering	It should be appreciated that with all products weathering and site conditions can cause shade variation to appear across the surface of individual units. This does not in any way affect the performance of the units and any such variation will diminish over a period of time as the product matures.
Product Evolution	The evolution of new product design is continuous and information is subject to change without notice. Customers should check with the supplier to ensure that they have the latest details Product Evolution Marshall's reserve the right to amend the technical information as deemed necessary and in accordance with the relevant national and international standards without notice

Contact Us	For technical information on the design, specification and construction when utilising the product, contact the Technical Advisory Services Department on 0370 411 2233
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Tegula Priora 160 x 160 x 80

Date Created: 07/02/19



Tegula Priora -
Traditional



Tegula Priora - Red
And Charcoal Multi



Tegula Priora -
Burnt Ochre



Tegula Priora -
Harvest



Tegula Priora -
Pennant Grey

*Natural products are manufactured from aggregates sourced locally to the works and contain no pigmentation, therefore colour variation between products from different works is possible.

Marshall's market-leading Priora permeable paving has been proven over 10 years of successfully installed projects. Tegula Permeable Paving is a lightly weathered, multi-size, SuDS-compliant surfacing solution, ideal for use in rural, rustic projects.

The traditional sizes create a classically British aesthetic that suits civic and residential developments alike. Each unit features the unique, patented Priora nib which ensures that surface water drains straight into the specially prepared sub-base, leaving the paved area clean, safe and puddle-free. The nibs also interlock to enhance surface stability.

Tegula Priora is available in 5 different colours and 3 different plan sizes to enable a variety of laying patterns to be created. As long as the sub-base is installed to Marshall's specification, Tegula Priora is suitable for all loading requirements.

DESCRIPTION

Appearance	Solid unit with integral spacers intended to create 6mm drainage apertures
Manufacturing Process	Semi dry pressed & vibrated concrete
Base Raw Material	Concrete
Governing Manufacturing Standards	All data where relevant to be established in accordance with BS EN 1338 : 2003
CE Marking/DOP	https://www.marshall's.co.uk/dop
NBS Specification	Q24 115



Tegula Priora 160 x 160 x 80

Date Created: 07/02/19

PHYSICAL PROPERTIES

Tolerances	Minimum (mm)	Maximum (mm)
Length	158	162
Width	158	162
Thickness	77	83
Work Dimensions (mm)	160 x 160 x 80	
Nominal Dimensions (mm)	160 x 160 x 80	
Tolerances on Work Dimensions (mm)	Length ±2mm, width ±2mm, thickness ±3mm	
Abrasion Resistance (mm)	≤ 23mm (Wide Wheel Abrasion Test)	
Durability (Freeze-thaw)	≤ 1.0 kg/m ² as a mean with no individual value > 1.5 kg/m ²	
Material Density	2300 kg/m ³ (typically)	
Slip/Skid Resistance (polished)	Mean polished skid resistance value (PSRV) : > 45	
Slip/Skid Resistance (unpolished)	Mean unpolished skid resistance value (USRV) : > 45.	
Thermal Conductivity (K value)	Design data as defined in BS EN 13369 : 2013	
Tensile Splitting Strength	Characteristic tensile splitting strength not less than 3.6 MPa. None of the individual results shall be less than 2.9 MPa, nor have a failure load less than 250N/mm of splitting length	

SPECIFICATION

Approx unit weight (kg)	4.7
Emission of Asbestos	No content
External Fire Performance	Deemed to satisfy. See commission decision 2000/553/ECU
Reaction to fire	Class A1, see commission decision 2000/605/EC

SUSTAINABILITY

Breeam	These units can achieve an "A" rated system when used in conjunction with the correct sub-base components
Carbon Footprint	22 kg CO ₂ m ²

APPLICATION

Loading Classification	Category 9 - 4 to 8 msa
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SITE WORKS

Coverage	39 no per m ²
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SUPPLY

Av. pack size (m ²)	9
Av. pack weight (kg)	1347
Packaging	All packs are shrinkwrapped onto pallets for fork off-load or crane off-load if necessary

FURTHER INFORMATION

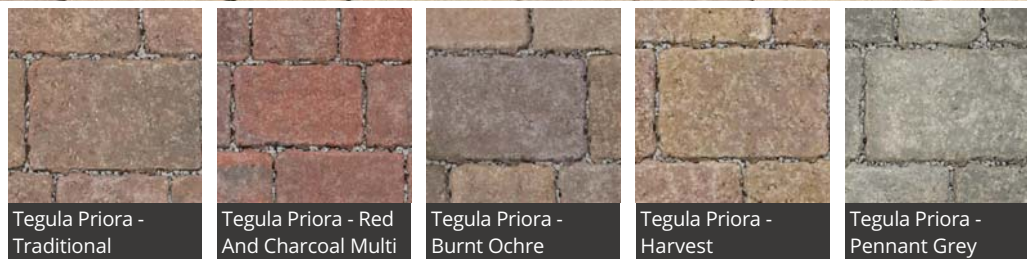
Cleaning & Maintenance	Cleaning & maintenance details are available on request
Efflorescence	Any product containing cement during its early life may exhibit a temporary white discolouration known as efflorescence. This is not a product fault and will gradually disappear with exposure to natural weathering and trafficking
Weathering	It should be appreciated that with all products weathering and site conditions can cause shade variation to appear across the surface of individual units. This does not in any way affect the performance of the units and any such variation will diminish over a period of time as the product matures.
Product Evolution	The evolution of new product design is continuous and information is subject to change without notice. Customers should check with the supplier to ensure that they have the latest details Product Evolution Marshall's reserve the right to amend the technical information as deemed necessary and in accordance with the relevant national and international standards without notice

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Tegula Priora 160 x 120 x 80

Date Created: 07/02/19



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Tegula Priora is available in 5 different colours and 3 different plan sizes to enable a variety of laying patterns to be created. As long as the sub-base is installed to Marshall's specification, Tegula Priora is suitable for all loading requirements.

DESCRIPTION

Appearance	Solid unit with integral spacers intended to create 6mm drainage apertures
Manufacturing Process	Semi dry pressed & vibrated concrete
Base Raw Material	Concrete
Governing Manufacturing Standards	All data where relevant to be established in accordance with BS EN 1338 : 2003
CE Marking/DOP	https://www.marshalls.co.uk/dop
NBS Specification	Q24 115



Tegula Priora 160 x 120 x 80

Date Created: 07/02/19

PHYSICAL PROPERTIES

Tolerances	Minimum (mm)	Maximum (mm)
Length	158	162
Width	118	122
Thickness	77	83
Work Dimensions (mm)	160 x 120 x 80	
Nominal Dimensions (mm)	160 x 120 x 80	
Tolerances on Work Dimensions (mm)	Length ±2mm, width ±2mm, thickness ±3mm	
Abrasion Resistance (mm)	≤ 23mm (Wide Wheel Abrasion Test)	
Durability (Freeze-thaw)	≤ 1.0 kg/m ² as a mean with no individual value > 1.5 kg/m ²	
Material Density	2300 kg/m ³ (typically)	
Slip/Skid Resistance (polished)	Mean polished skid resistance value (PSRV) : > 45	
Slip/Skid Resistance (unpolished)	Mean unpolished skid resistance value (USRV) : > 45.	
Thermal Conductivity (K value)	Design data as defined in BS EN 13369 : 2013	
Tensile Splitting Strength	Characteristic tensile splitting strength not less than 3.6 MPa. None of the individual results shall be less than 2.9 MPa, nor have a failure load less than 250N/mm of splitting length	

SPECIFICATION

Approx unit weight (kg)	3.5
Emission of Asbestos	No content
External Fire Performance	Deemed to satisfy. See commission decision 2000/553/ECU
Reaction to fire	Class A1, see commission decision 2000/605/EC

SUSTAINABILITY

Breeam	These units can achieve an "A" rated system when used in conjunction with the correct sub-base components
Carbon Footprint	22 kg CO ₂ m ²

APPLICATION

Loading Classification	Category 6 - 10 large goods vehicles per week (0.15 msa)
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SITE WORKS

Coverage	53 no per m ²
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SUPPLY

Av. pack size (m ²)	7.7
Av. pack weight (kg)	1444
Packaging	All packs are shrinkwrapped onto pallets for fork off-load or crane off-load if necessary

FURTHER INFORMATION

Cleaning & Maintenance	Cleaning & maintenance details are available on request
Efflorescence	Any product containing cement during its early life may exhibit a temporary white discolouration known as efflorescence. This is not a product fault and will gradually disappear with exposure to natural weathering and trafficking
Weathering	It should be appreciated that with all products weathering and site conditions can cause shade variation to appear across the surface of individual units. This does not in any way affect the performance of the units and any such variation will diminish over a period of time as the product matures.
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APPENDIX C

PATHS/PAVINGS INFORMATION.

HERITAGE®

Paving



Heritage Paving & Coping
Yorkstone



Calder Brown (CB)

Yorkstone (Y)

Old Yorkstone (OY)

Weathered
Yorkstone (WYS)

Elegant riven sandstone alternative

Heritage is cast from split stone flags with mason fettled edges. Versatile and elegant, Heritage offers a popular and attractive paving choice. With a natural riven look and a choice of colours and accessories designed to complement every garden space.

	Sizes mm (nominal)	No. items/ pack	No. /m²	m²/pack	Colours	Order Select
Paving	600 x 600 x 38	22	2.8	7.9	CB Y OY WYS	✓*
	600 x 450 x 38	22	3.7	5.9		
	600 x 300 x 38	44	5.6	7.9		
	450 x 450 x 38	44	4.9	8.9		
	300 x 300 x 38	44	11.1	4.0		

*For Order Select details on Project Packs see p194.

Complete this look

Steps p166, Walling p148, Borders p174

Visit Marshalls.co.uk/homeowners for more information or to order a sample today

All products come with specific installation guidelines. See p190 for additional product notes or contact our technical team on 0370 411 2233.

