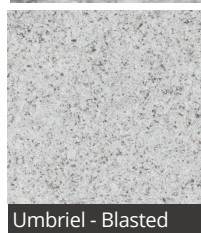
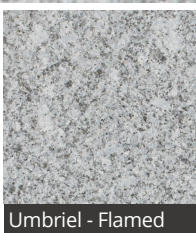


Umbriel Granite

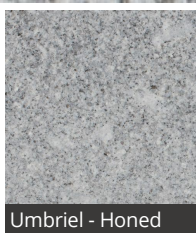
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Umbriel - Blasted



Umbriel - Flamed



Umbriel - Honed

*It should be noted that colour variations and markings are characteristic of Natural Stone. Inherent variations cannot be controlled nor the precise shade of stone guaranteed.

Granite is a popular choice in urban design because of its strong, hard-wearing properties and excellent weather resistance.

Umbriel Granite is a dark grey stone suitable for most areas subject to pedestrian and vehicular traffic. It's available in several finishes – blasted, flamed and honed, which is ideal for the non-trafficked feature elements of your scheme, such as street furniture, copings and masonry.

This versatile granite is available across all product areas, including paving, setts, kerbs, tactile steps, street furniture and other specialised masonry items to help create a complementary streetscape.

With Umbriel Granite, and all granites in the extensive Marshall's range, you can rely on a product quarried and produced in Europe to ISO9001 quality assurance standards. Our granites are also fully tested in accordance with all UK standards and CE marked to comply with latest legislation.

DESCRIPTION

Appearance	Mid grey Granite with large white and small black inclusions
Manufacturing Process	Sawn
Geological Type	Granite
Quarry of Origin	Porto, Portugal
Governing Manufacturing Standards	All data where relevant to be established in accordance with BS EN 1341 : 2012, BS EN 1342 : 2012 & BS EN 1343 : 2012
Petrographical Description	Pale gre to blue coarse grained Granite
CE Marking/DOP	https://www.marshalls.co.uk/dop

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PHYSICAL PROPERTIES

Work Dimensions (mm)	450 x 450 x 50 450 x 450 x 60 450 x 450 x 70 900 x 450 x 50 900 x 450 x 60 900 x 450 x 70 600 x 600 x 50 600 x 600 x 60 600 x 600 x 70 900 x 600 x 50 900 x 600 x 60 900 x 600 x 70 200 x 100 x 50 200 x 100 x 60 200 x 100 x 70 300 x 100 x 50 300 x 100 x 60 300 x 100 x 70 300 x 150 x 50 300 x 150 x 60 300 x 150 x 70 300 x 200 x 50 300 x 200 x 60 300 x 200 x 70
Tolerances on Work Dimensions (mm)	Paving Class 1 tolerances to all dimensions as standard Setts Class 2 tolerances to all dimensions as standard Kerbs Class 2 tolerances to all dimensions as standard Others by agreement
Abrasion Resistance (mm)	17mm (Mean value to EN 14157 : 2004 (Hev = 17.6mm))
Durability (Freeze-thaw)	17.4/16.3 MPa (Mean values to EN 12371 : 2006)
Material Density	2655 kg/m ³ (Mean value to EN 1936 : 2006)
Open Porosity (%)	0.60% (Mean value to EN 1936 : 2006)
Compressive Strength (MPa)	214 MPa (Mean value to EN 1926 : 2006 (Lev = 182 MPa))
Water Absorption (%)	0.24% (Mean value to EN 13755 : 2008 (Hev = 0.36%))
Transverse/FlexuralSplit/Breaking	17.7 MPa (Mean value to EN 12372 : 2006 (Lev = 12.5 MPa))

TEXTURE SPECIFIC PROPERTIES

MANUFACTURING

Materials Control	CE Marked to BS EN 1341 Paving, 1342 Setts, 1343 Kerbs
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SUSTAINABILITY

ERI Score	Our Score: 4.2 Cluster Score: 3.6
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Carbon Footprint

Umbriel Granite Paving 300 x RL x 50	81.5 kg CO2 m ²
Umbriel Granite Paving 300 x RL x 63	97.8 kg CO2 m ²
Umbriel Granite Paving 300 x RL x 75	114.1 kg CO2 m ²
Umbriel Granite Paving 450 x 450 x 50	81.5 kg CO2 m ²
Umbriel Granite Paving 450 x 450 x 63	97.8 kg CO2 m ²
Umbriel Granite Paving 450 x 450 x 75	114.1 kg CO2 m ²
Umbriel Granite Paving 450 x 900 x 50	81.5 kg CO2 m ²
Umbriel Granite Paving 450 x 900 x 63	97.8 kg CO2 m ²
Umbriel Granite Paving 450 x 900 x 75	114.1 kg CO2 m ²
Umbriel Granite Paving 450 x RL x 50	81.5 kg CO2 m ²
Umbriel Granite Paving 450 x RL x 63	97.8 kg CO2 m ²
Umbriel Granite Paving 450 x RL x 75	114.1 kg CO2 m ²
Umbriel Granite Paving 600 x 600 x 50	81.5 kg CO2 m ²
Umbriel Granite Paving 600 x 600 x 63	97.8 kg CO2 m ²
Umbriel Granite Paving 600 x 600 x 75	114.1 kg CO2 m ²
Umbriel Granite Paving 600 x 900 x 50	81.5 kg CO2 m ²
Umbriel Granite Paving 600 x 900 x 63	97.8 kg CO2 m ²
Umbriel Granite Paving 600 x 900 x 75	114.1 kg CO2 m ²

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	Blasted	Flamed	Honed
Light Reflectance Value (LRV)	36.99	36.71	27.76
Surface Roughness (Rz-µm)	>75	>75	19
Slip Resistance (BS 14231) (Dry)	95	95	66.5
Slip Resistance (BS 14231) (Wet)	70	70	43.8

SUSTAINABILITY

Umbriel Granite Paving 600 x RL x 50	81.5 kg CO2 m²
Umbriel Granite Paving 600 x RL x 63	97.8 kg CO2 m²
Umbriel Granite Paving 600 x RL x 75	114.1 kg CO2 m²
Umbriel Granite Setts 200 x 100 x 50	81.5 kg CO2 m²
Umbriel Granite Setts 200 x 100 x 63	97.8 kg CO2 m²
Umbriel Granite Setts 200 x 100 x 75	114.1 kg CO2 m²
Umbriel Granite Setts 300 x 100 x 50	81.5 kg CO2 m²
Umbriel Granite Setts 300 x 100 x 63	97.8 kg CO2 m²
Umbriel Granite Setts 300 x 100 x 75	114.1 kg CO2 m²
Umbriel Granite Setts 300 x 150 x 50	81.5 kg CO2 m²
Umbriel Granite Setts 300 x 150 x 63	97.8 kg CO2 m²
Umbriel Granite Setts 300 x 150 x 75	114.1 kg CO2 m²
Umbriel Granite Setts 300 x 200 x 50	81.5 kg CO2 m²
Umbriel Granite Setts 300 x 200 x 63	97.8 kg CO2 m²
Umbriel Granite Setts 300 x 200 x 75	114.1 kg CO2 m²

FURTHER INFORMATION

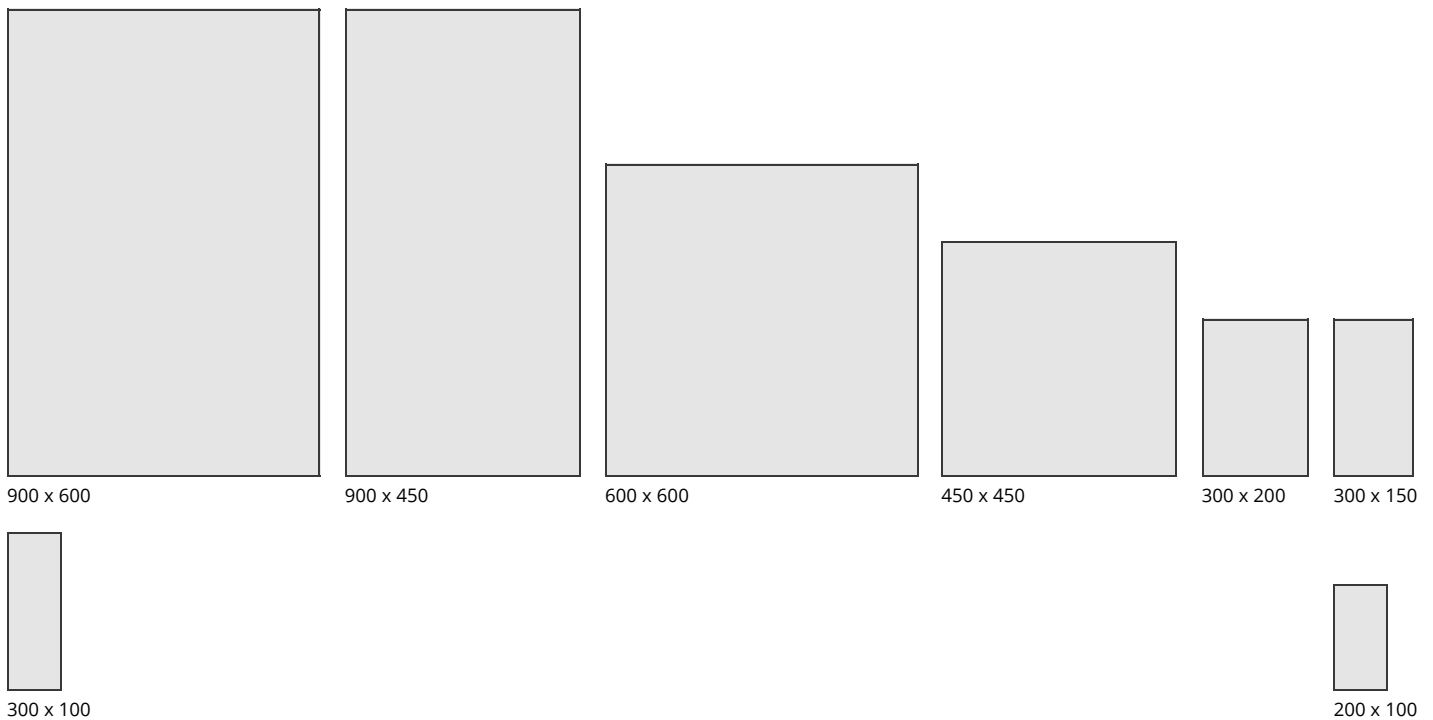
Contact Us	For technical information on the design, specification and construction when utilising the product, contact the Technical Advisory Services Department on 0370 411 2233
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Umbriel Granite

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Suggested Plan Sizes



The plan sizes shown above illustrate popular sizes of our Natural Stone. Bespoke sizes are available upon request.