GUITING QUARRY
UPPER COSCOMBE, TEMPLE GUITING, CHELTENHAM. GL54 5SB
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GUITING GOLD COTSWOLD LIMESTONE

Petrographic Description and Mineral Examination:

Guiting Gold Limestone is orange-brown in colour and consists primarily of ooliths with a number of typically elongated bioclasts. The constituents are held within a coarse carbonate cement and there appeared to be a broad alignment of some of the components. During testing there was no evidence of weathering or deterioration.

In thin section the stone consists of a general assemblage of ooliths, bioclasts and intraclasts with quartz grains forming a notable constituent. Some ooliths show a typical concentric structure but many had a seed consisting of quartz grain, bioclast or intraclast/lithoclast fragnents. Some are also formed around a quartz or feldspar crystal. Bioclasts consist mainly of echinoid plates, bivalves and gastropods and usually show a rim of micrite around the periphery.

Iron minerals are present in small quantities throughout the section which often give rise to the development of oxides/hydroxides producing the distinctive orange colour to the stone. Based on the mineralogy identified the stone has been given the classification of Oolitic limestone.

Block Dimensions:

- Bed Height 300mm – 2000mm
- Block Length Upto 4000mm
- Block Width Upto 1500mm
- Block Weight Upto 16 tonnes

Technical Data [BRE Test Report P117497 – 21st December 2020]

*Masonry BSEN 771-6

TEST	STANDARD	RESULT
Petrographic Examination	BS EN 12407	Oolitic Limestone [Oosparite]
Apparent Density	BS EN 1936	2010 kg/m³
Open Porosity	BS EN 1936	25.7% by volume
Water Absorption by atmospheric pressure	BS EN 13755	9.6% by weight
Water Absorption by capillarity	BS EN 772-11	98 g/(m2.s0.5)
Compressive Strength	BS EN 772-11	10.2 MPa
Frost Resistance	BS EN 12371	56 Cycles
Water vapour resistance factor dry	EN ISO 10456	50
Water vapour resistance factoe wet	EN ISO 10456	40
Specific heat capacity	BS EN 1745	1000 J/(kg.K)
Thermal Conductivity	BS EN 1745	1.7 W/(m.K)
Reaction to fire	ISO 13501-1	A1

*Cladding BS EN 1469

TEST	STANDARD	RESULT
Petrographic Examination	BS EN 12407	Oolitic Limestone [Oosparite]
Apparent Density	BS EN 1936	2010 kg/m³
Open Porosity	BS EN 1936	25.7% by volume
Open Porisity after Thermal resistance	BS EN 1936	25.5% by volume
Water Absorption by atmospheric pressure	BS EN 13755	9.6% by weight
Water Absorption by capillarity	BS EN 772-11	95 g/(m2.s0.5)
Flexural strength dry tested perpendicular to the edges of the planes of anisotropy	BS EN 12372	2.0 (1.3) MPa
Flexural strength after 14 cycles freeze/thaw resistance	BS EN 12372	2.0 (1.6) MPa
Flexural strength dry after 20 cycles thermal resisitance	BS EN 12372	2.0 (1.4) MPa
Breaking load at dowel hole	BS EN 13364	800 N
Water vapour resistance factor dry	BS EN 10456	50
Water vapour resistance factor wet	BS EN 10456	40
Specific heat capacity	BS EN 1745	1000 J/(kg.K)
Thermal Conductivity	BS EN 1745	1.1 W/(m.K)
Reaction to fire	ISO 13501-1	A1
Direct airborne sound insulation	BS EN 1936	2010 kg/m³

*All comprehensive British and European Standards test data and declaration of performance for CE Marking application are available on request.

To discuss Block Stone or request further information, please contact Guitng Quarry 01451 600670 or visit our website www.jqgroup.co.uk