



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 fragments. 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 – 21<sup>st</sup> December 2020]

\*Masonry BSEN 771-6

| TEST                                     | STANDARD     | RESULT                        |
|--|--------------|-------------------------------|
| Petrographic Examination                 | BS EN 12407  | Oolitic Limestone [Oosparite] |
| Apparent Density                         | BS EN 1936   | 2010 kg/m <sup>3</sup>        |
| 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/(m <sup>2</sup> .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 factor 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/m <sup>3</sup>        |
| Open Porosity   | BS EN 1936   | 25.7% by volume               |
| Open Porosity 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/(m <sup>2</sup> .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 resistance                            | 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/m <sup>3</sup>        |

\*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.jggroup.co.uk](http://www.jggroup.co.uk)



Disclaimer:

Natural limestone, as the name implies, is a product of nature. Therefore, any variations in texture, color, veining, markings, marbling and patina must be accepted. These differences and disparities are part of what makes natural stone beautiful, and should not be considered as flaws. Over time, many factors influence weathering characteristics of natural stone such as location, degree of exposure, prevailing weather conditions and design. Any product images or photographs shown on our website are in place to provide a general idea about the colour and variations that can appear in our natural stone. All samples provided are to give you an overall idea of the variation in veining and color variation. Any recommendations or suggestions made in the use of stone do not constitute a guarantee.