



GREAT TEW QUARRY
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GREAT TEW IRONSTONE

Petrographic Description and Mineral Examination:

Great Tew Ironstone [The Marlstone Rockbed] has a distinctive deep orange-brown colour with occasional patches of white mineralisation/marbleing and is commonly found throughout the counties of North Oxfordshire, Northamptonshire through to Rutland. Overall the stone is fine grained with some particles having a deep iron-rich colour with others being paler.

In thin section the stone had a high content of rounded to angular grainules ranging in colour from dark iron-brown to pale orange. Sometimes the grains were oolitic, with seeds and rims of different composition/texture. These grains were generally well-compacted and often grain-supported. Also present were broken up fossil fragments which appeared to include bryozoan, bivalves, echinoid and crinoid pieces.

A partial carbonate cement is visible throughout the section, with the distribution of this being rather variable. Patches showing a well-developed cement are those areas of the hand specimen appearing white and more resistant. There was also evidence of a fine siliceous/clay matrix in some areas of the section. Based on the mineralogy identified in thin section and the texture seen in hand specimen, the stone has been given the classification of Ferruginous limestone.

Block Dimensions:

- Bed Height: 300mm – 1200mm
- Block Length: Upto 4000mm
- Block Width: Upto 1500mm

*BRE Test Data:

Open Porosity	BSEN 1936	27.1	% BY VOL.
Apparent Density	BSEN 1936	2120	Kg.m-3
Water Absorption [Atmospheric Pressure]	BSEN 13755	10.7	%
Water Absorption [by Capillarity]	BSEN 772 – 11	60.5	g.m-2.S-0.5
Compressive Strength	BSEN 772 – 11	20.4	MPa
Compressive Strength [after freeze thaw]	BSEN 772 – 11	16.0	MPa
Thermal Conductivity [10 dry units]	BSEN 1745	1.7	W[m.k]-1
Reaction to fire	BSEN 13501-1	A1	

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

To discuss Block Stone please contact us using the information above and below.