

BRE Test Report

Testing of Hooby Lane Bed 1 Clipsham Limestone

Prepared for: Phil Kerry
Date: 28 April 2021
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Table of Contents

1	Introduction	3
2	Test programme	3
3	Test Results	4
4	Appendix Detailed Test Results	5



1 Introduction

Following instruction from Phil Kerry (Goldholme Stone Ltd.) BRE has completed a series of tests on the Hooby Lane Bed 1 Clipsham Limestone.

The stone was delivered to BRE on the 26/03/2021.

This report provides a factual account of the testing carried out on the samples as received.

2 Test programme

BRE have carried out the following tests:

BS EN 13161: 2008, Natural stone test methods. Determination of flexural strength under constant moment*

BS EN 13161: 2008, Natural stone test methods. Determination of flexural strength under constant moment after 14 cycles of freeze-thaw*

BS EN 12371: 2010, Natural stone test methods. Determination of frost resistance*

* BRE is UKAS accredited for this test.



3 Test Results

Given below is a summary of the test results, full details can be found in the Appendix.

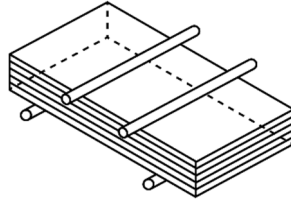
Test	Standard	Result	Unit
Flexural strength dry	BS EN 13161	4.4 (3.5)	MPa
Flexural strength after 14 freeze-thaw cycles	BS EN 12371 & BS EN 13161	4.3 (2.4)	MPa



4 Appendix Detailed Test Results



**BS EN 13161:2008 Determination of flexural strength under constant moment
Tested perpendicular to bedding**



Name of Stone:	Hooby Lane Bed 1 Clipsham Limestone	Petrographic Nature:	Limestone			
Block number:	No data supplied	Anisotropic Features:	Bedding visible (Not marked)			
Supplier:	Goldholme Stone Ltd	Country of Origin:	UK			
Load rate:	0.25 MPa.s ⁻¹	Project Reference:	P120000			
Surface Finish:	Sawn	Preparation:	Prepared to BS EN 13161			
Date Tested:	27/04/2021	Tested By:	I. Rance			
BRE No.	Span	Length	Width	Thickness	Failure Load	Flexural Strength
P120000/21/	mm	mm	mm	mm	N	MPa
51	250	301	75.6	51.0	3100	3.9
52	250	300	75.7	51.0	3670	4.7
53	250	302	75.9	51.4	4130	5.1
54	250	301	76.2	51.3	3320	4.1
55	250	301	75.9	51.3	3380	4.2
56	250	301	76.0	51.4	4110	5.1
57	250	300	76.1	51.3	3880	4.8
58	250	300	76.0	50.9	3020	3.8
59	250	302	76.0	52.4	3500	4.2
60	250	300	75.6	50.8	3500	4.5
					Mean	4.4
					St. Dev	0.47
					Co of var	0.11
					LEV	3.5

Approved by:

Date: 27/04/2021

Name:

Dr Martyn Webb

Position:

Principal Consultant, Assurance Group, Construction Testing



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BS EN 13161:2008 Determination of flexural strength under constant moment Tested dry after 14 cycles of frost conditioning to BS EN 12371 perpendicular to bedding						
Name of Stone:	Hooby Lane Bed 1 Clipsham Limestone		Petrographic Nature:		Limestone	
Block number:	No data supplied		Anisotropic Features:		Bedding visible (Not marked)	
Supplier:	Goldholme Stone Ltd		Country of Origin:		UK	
Load rate:	0.25 MPa.s ⁻¹		Project Reference:		P120000	
Surface Finish:	Sawn		Preparation:		Prepared to BS EN 13161	
Date Tested:	26/04/2021		Tested By:		I. Rance	
BRE No.	Span	Length	Width	Thickness	Failure Load	Flexural Strength
P120000/21/	mm	mm	mm	mm	N	MPa
101	250	301	75.9	51.3	3650	4.6
102	250	301	75.6	50.9	3940	5.0
103	250	301	75.8	50.9	3270	4.2
104	250	300	75.7	51.2	1590	2.0
105	250	300	76.0	53.3	4340	5.0
106	250	301	75.7	51.2	3610	4.5
107	250	300	75.6	50.9	3570	4.6
108	250	300	75.8	51.3	3720	4.7
109	250	301	76.0	51.3	3340	4.2
110	250	302	75.9	51.2	3250	4.1
					Mean	4.3
					St. Dev	0.86
					Co of var	0.20
					LEV	2.4
Approved by:			Date:		27/04/2021	
Name:	Dr Martyn Webb					
Position:	Principal Consultant, Assurance Group, Construction Testing					
					 0378	