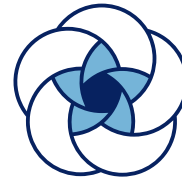


# TEST REPORT

Lightwater Quarries Ltd  
Potgate Quarry  
North Stainley  
Ripon  
HG4 3JN



White  
Rose  
Laboratory  
Services  
Ltd

Lumley St • Castleford • WF10 5LB  
01977 520625 • enquiries@whiteroselabs.co.uk

Report WRL/18/239  
Issue date 13/03/18

Material	Type one sub base crushed limestone		
Site	Gebdyke Quarry		
Specification	SHW Series 800	Sample N°	S/18/239
Source	Gebdyke Quarry	Sampled by	J.Brigham
Supplier	Lightwater Quarries	Date sampled	07/02/18
Sample location	Stockpile	Date received	07/02/18
Sample type	Bulk	Date tested	12/03/18
Order number	8815LQ	Date reported	13/03/18

## Subcontract Testing

Please find attached results of the following subcontracted testing

Frost Susceptibility (SOCOTEC)

M Randerson  
Laboratory Services Director



0001

TEST REPORT

## Determination of Frost Susceptibility

Client White Rose Laboratory Services Ltd Report No: 51040153/18/01  
Lumley Street Batch Number: DAM0071918  
Castleford  
WF10 5FL

Contact: J.Church

Site: Job S/18/239


Test Method: BS 812-124: 2009 Specification for Highway Works 2009: Clause 801

Sample Details:

Date Received:	21.02.18
Date Sampled	07.02.18
Sampled By:	Client
Sampling Certificate:	Not Received
Tested From:	28.02.18-05.02.18

Results: See attached sheets

Page: 1 of 2  
Date: 12.03.18

Signed:  [✓] S. Robinson - Deputy Section Manager  
[ ] S. Bourton - Laboratory Manager

For and on behalf of SOCOTEC UK Limited

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0001

TEST REPORT

## Determination of Frost Susceptibility

Report Number: 51040153/18/01

Laboratory Reference	Client Reference	Supplier	Source	Material Type
45337728	Stockpile	Lightwater Quarries Ltd	Gebdykes Quarry	Type 1 Sub-base Crushed Limestone

Compaction Characteristics (BS EN 13286-4: 2003)	
Maximum Dry Density (Mg/m <sup>3</sup> )	2.21
Optimum Water Content (%)	9.0

Particle Size Distribution (BS EN 933-1: 2012)			
BS Test Sieves	Percentage Passing		
(mm)	As Tested	Stable Test Specimen	Specification
63	100	100	100
31.5	95	94	75 - 99
16	57	61	43 - 81
8	31	32	23 - 66
4	20	20	12 - 53
2	15	13	6 - 42
1	11	10	3 - 32
0.063	6.8	7	0 - 9

Heave of Specimens after 96 hours freezing (mm):				
1	2	3	Average	Specification
4.0	6.5	8.0	6.2	<15

Heave of Reference Specimens after 96 hours freezing (mm):				
1	2	3	Average	Specification
11.0	11.0	11.0	11.0	13.6 ± 4

**THE MATERIAL AS SAMPLED AND TESTED WAS FOUND TO BE NON FROST SUSCEPTIBLE**

Classification: Specification for Highway Works 2009: Clause 801

Certified that the laboratory testing was carried out in accordance with BS 812-124: 2009

Page 2 of 2  
 Date: 12.03.18

[✓] S. Robinson - Deputy Section Manager  
**Signed:** \_\_\_\_\_ [ ] S. Bourton - Laboratory Manager  
 For and on behalf of SOCOTEC UK Limited

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