

Determination of Frost Susceptibility

Report No:	FHR:SCO24-01446-S001	Report Date:	9 October 2024
Client:	GEO QUARRIES LTD	Our Contract Ref:	51076644
Address:	LITTLE PONTON QUARRY WHALEBONE LANE GRANTHAM NG31 7TU	Sample No.	5225800
Client Contact:	Martin Bridges	Client Sample Ref:	K824-1479
Site:	Little Ponton Quarry	Date Sampled:	5 Sep 2024
Location:	Stock	Date Received:	13 Sep 2024
Description:	Crushed Rock & Fines As Type 1 Sub Base	Date Tested:	25 Sep 2024 to 4 Oct 2024
Material Specification:	SHW: 2016: AMD Nov 2021 Series 800: Sub-Clause 801.15 & Clause 803 Table 8/6a Type 1	Tested By:	SOCOTEC Glasgow
		Material Supplier:	Geo Quarries Ltd
		Material Source:	Little Ponton Quarry
		Sampling Certificate:	Received
		Sampled by:	Client

Results :

Frost Susceptibility

Maximum Heave after 96 hrs (mm)				Classification
Individual Specimens			Mean	NON-FROST SUSCEPTIBLE
12.5	16.5	12.5	13.8	

Mean Maximum Heave after 96hrs to be <=15mm

Particle Size Distribution (BS EN 933-1:2012 Washing and sieving method)

Sieve (mm)	% Passing		Specification
	Submitted Sample	Stable Specimen	
63	100	100	100
31.5	95	97	75 - 99
16	72	78	43 - 81
8	41	49	23 - 66
4	27	34	12 - 53
2	20	25	6 - 42
1	15	19	3 - 32
0.063	4.3	5.1	0 - 9

Validity of Test Run

Parameter	Result (mm)			Criteria
Heave of individual reference specimens	9.5	10.0	10.5	N/A
Mean Heave of Reference	10.0			13.6 ± 4.0mm
Maximum Range in any set of 3 No Test Specimens	4.5			Not to exceed 6mm

CONDITION REQUIREMENTS: SATISFACTORY

Laboratory Reference Density and Water Content (BSEN 13286-4:2003)

Optimum Water Content (%)	Maximum Dry Density (Mg/m³)
8.8	2.12

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

Signed:

M. Lawson

Malcolm Lawson – Technical Manager
 for and on behalf of SOCOTEC UK Limited