CSG Sand Lab Dry Screened Test: (a) Grading

Supplier : **Cardigan Sand & Gravel Co. Ltd.**
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Material Description: 0/4 Grey Lime Mortar Sand for General Building works using Natural Hydraulic Lime NHLS (BLM Grey)

Material Tested: 0/4 Plastering and Rendering Mortar Sand MP Cat 1
Fines Content: Category 1
BSI Published Document: PD 6682-3 : 2003 Tb1 B1
European Standard: BS EN 13139 : 2013(E)

Material Source: CYE/CSG NHLS 0/4 - 18/07/14

Aggregate Type: Glacial
Sampling Point: Cnwc-y-Saeson
Age: Pleistocene

Sampled by: DGK

The results of the sieve analysis are as shown on those of the following sieves which have the retained weight recorded against them

Sieve Size (mm)	Weight Retained (g)	% Retained	% Passing	Target Grading	Tolerance
14.000		0.0	100.0	100.0	
10.000	0.0	0.0	100.0	100.0	
8.000		0.0	100.0	100.0	100/100
6.300	0.0	0.0	100.0	100.0	98/100
5.000		0.0	100.0	98.0	
4.000	2.0	0.6	99.4	96.0	89/99
3.350 *	0.0	0.0	99.4	92.0	
2.800	19.0	5.4	94.0	90.0	
2.000	41.5	11.9	82.1	86.0	
1.180	67.2	19.2	62.9	76.0	
1.000	21.3	6.1	56.8	71.0	± 20 45/85
0.600	47.2	13.5	43.3	50.0	
0.500	15.0	4.3	39.1	45.0	MP 30/70
0.425					
0.300	32.5	9.3	29.8	20.0	
0.250	11.1	3.2	26.6	15.0	± 20 10/50
0.212	20.5	5.9	20.7		
0.150	61.3	17.5	3.2	5.0	
0.125	8.5	2.4	0.8	3.0	0/3
0.075	1.9	0.5	0.2	0.0	
0.063	0.0	0.0	0.2	0.0	0/3
0.000	0.8	0.2	0.0	0.0	
Total	349.8	100.0			

* - Interpolated

For your information

Cardigan Sand & Gravel Co. quarries a deposit that was laid down by an ancient lake fed by rivers flowing off the tip of the Teifi glacier. Our sands and aggregates are the result of disintegration of rock during transportation by the glacier. Our products, therefore, contain negligible amounts of shell and salt.

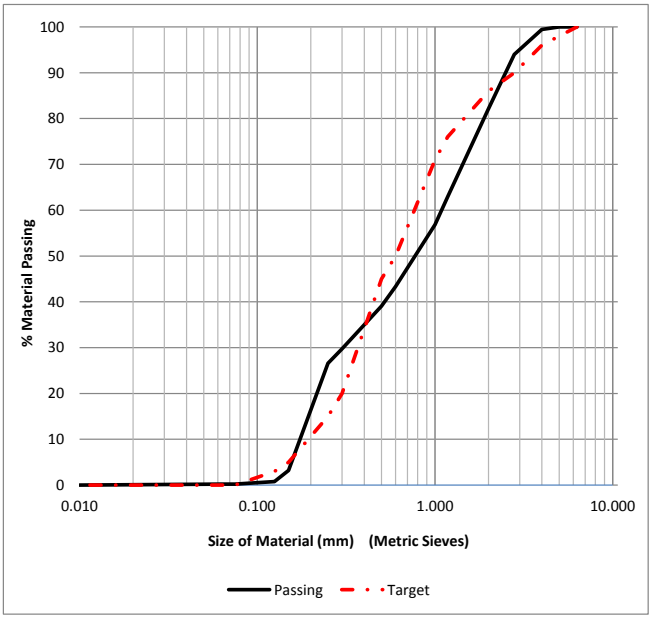
Our extracted materials pass through a rigourous system of scrubbers, screens, over-spill weirs, cyclones (prewash and dewatering) and classifiers. This allows us to carefully select particle sizes for optimum performance and also removes organic materials, clay, silt and mineral salts from the product.

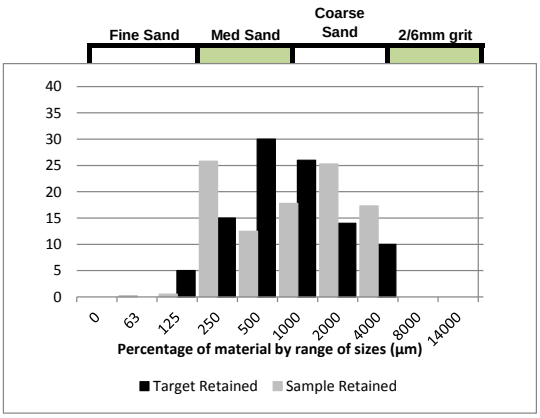
NHLS is the name we give to our Sand for General Building using Natural Hydraulic Lime.

The maximum particle size should be approximately one third of the height of the smallest joint. Depending on the size of the joint, sand from 6.3mm down to 0.063mm can be used with the proportion passing 250 microns comprising about 15% and no more than 3% passing the 125 micron sieve, and 0% passing the 63 micron sieve.

Adapted from St Astier Natural Hydraulic Lime "Practical Guide to choosing Sands". E. & O.E.

Material	Clay	Silt			Sand		
		Fine	Medium	Coarse	Fine	Medium	Coarse
microns	0-2	2-6	6-20	20-60	60-200	200-600	600-2000





NOTE:- The % material larger than 0.063mm but smaller than 0.125mm is recorded between the 0.063 and 0.125 grid lines, etc.
5 Grey columns exceeding 10% = very well graded
4 Grey colums exceeding 10% = well graded
3 Grey columns exceeding 10% = less well graded
2 Grey columns exceeding 10% = poorly graded
1 Grey column exceeding 10% = monogranular.

This information is a guide only and does not constitute a specification. There are a vast number of sands differing in grading and qualities.
To be sure that a well graded sand is being used it is necessary that at least four grades form a substantial part of over 10% of the proposed sand.
This sand has 5 grey columns in the size range above 10% indiciating a very well graded sand.

Ref: Dry Screening Test Result - 0-4 GREY BLM NHLS CYE