CSG Sand Lab Dry Screened Test: (a) Grading

Supplier: Cardigan Sand & Gravel Co. Ltd.

Cnwc-y-Saeson Production Plant Penparc, Cardigan, Ceredigion SA43 1RB Material Description: 0/2 Brown Lime Mortar Sand for Dubbing Out,

Stipple Coats, Base Coats & Rough Finishing Coats using Natural Hydraulic Lime NHLA (BLM Brown) 0/2 Plastering and Rendering Mortar Sand FP

Material Tested: 0/2 Plasteri Fines Content: Category 2

BSI Published Document: PD 6682-3:2003 Tb1 B1 European Standard: BS EN 13139:2013(E)

Material Source: TGG ESG NHLA 0/2

Aggregate Type: Glacial

Sampling Point: Cnwc-y-Saeson

Age: Pleistocene

Sampled by: DGK

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Grid Ref.: SN 200E 485N

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

| recorded against them | | | | | | | | | | | |
|-----------------------|----------|----------|---------|---------|------------|--|--|--|--|--|--|
| Sieve Size | Weight | % | % | | | | | | | | |
| | Retained | | | Target | Tolerance | | | | | | |
| (mm) | (g) | Retained | Passing | Grading | | | | | | | |
| 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 | 100/100 | | | | | | |
| 5.000 | | 0.0 | 100.0 | 100.0 | | | | | | | |
| 4.000 | 0.0 | 0.0 | 100.0 | 100.0 | 100/100 | | | | | | |
| 3.350* | 0.0 | 0.0 | 100.0 | 100.0 | | | | | | | |
| 2.800 | 0.2 | 0.1 | 99.9 | 98.0 | 98/100 | | | | | | |
| 2.000 | 1.1 | 0.7 | 99.1 | 95.0 | 89/99 | | | | | | |
| 1.180 | 0.5 | 0.3 | 98.8 | 86.0 | | | | | | | |
| 1.000 | 3.7 | 2.4 | 96.4 | 85.0 | ± 20 59/99 | | | | | | |
| 0.600 | 4.5 | 3.0 | 93.4 | 66.0 | | | | | | | |
| 0.500 | 4.9 | 3.2 | 90.2 | 55.0 | FP 55/100 | | | | | | |
| 0.425 | | | | | | | | | | | |
| 0.300 | 46.1 | 30.3 | 59.9 | 31.0 | | | | | | | |
| 0.250 | 10.6 | 7.0 | 52.9 | 25.0 | ± 20 20/70 | | | | | | |
| 0.212 | 14.0 | 9.2 | 43.7 | 21.0 | | | | | | | |
| 0.150 | 39.5 | 26.0 | 17.7 | 11.0 | | | | | | | |
| 0.125 | 7.3 | 4.8 | 12.9 | 5.0 | 0/5 | | | | | | |
| 0.075 | 16.4 | 10.8 | 2.1 | 0.0 | | | | | | | |
| 0.063 | 1.4 | 0.9 | 1.2 | 0.0 | 0/5 | | | | | | |
| 0.000 | 1.8 | 1.2 | 0.0 | 0.0 | | | | | | | |
| Total | 152.0 | 100.0 | | | | | | | | | |

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

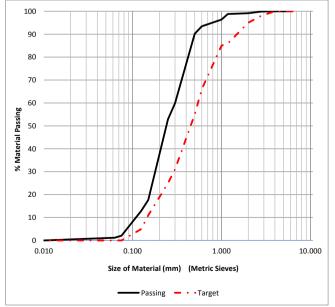
Our extracted materials pass through a rigourous system of scrubbers, screens, over-spill weirs, cyclones (prewash and dewatering) and classifiers. This allows us to carefully select particle sizes for optimum performance and also removes organic materials, clay, silt and mineral salts from the product.

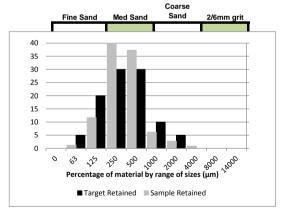
NHLA is the name we give to our Sand for Dubbing Out, Stipple Coats, Base Coats & Rough Finishing Coats using Natural Hydraulic Lime.

3mm down to 0.075mm particles may be used and the proportion retained on 0.150, 0.125 and 0.075 sieves should not exceed 15% in total.

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

| * - Interpolated | Material | Clay | | Silt | Sand | | |
|------------------|----------|------|----------|-------------|--------|---------|----------|
| | | | Fine Med | lium 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 3 grey columns in the size range above 10% indiciating a less well graded sand.