

APPROVED METHOD STATEMENT

SMR Soil Stabiliser for Backfill of Excavations in Footpaths & Type 3 / 4 Carriageways

Note: -

This method statement includes the use of *SMR* Soil Stabiliser in all backfill up to permanent re-instatement levels i.e. 60 mm from surface in flexible footpath, underside of existing in rigid and modular footpaths; & 100 mm from surface in Type 3 / 4 Carriageways.

General Instructions

All operatives will be trained and conversant with the application of soil stabilisers as stated below. All operatives will have at least one N.R.S.W.A qualified person on the team.

SMR Instructions

Determine the suitability of materials to be used as per N.R.S.W.A training.

- 1) Granular
- 2) Sand
- 3) Clay etc.

Determine the moisture content of material to be treated.

- 1) Take a handful of the material and squeeze into a ball, should it retain its shape, sufficient moisture is present for *SMR* to be used successfully and can be classified as normal soil.
- 2) Should it crumble and fail to retain its shape, a small amount of water should be added until the material retains its shape.
- 3) Should it deform and exude moisture when squeezed into a ball, classify the material as 'wet'.

Determine the amount of *SMR* to be used

Materials with normal moisture: 1 x 25 kg bag of *SMR* per cubic metre.

Clay or materials classified as 'wet': 2 x 25 kg bags of *SMR* per cubic metre.

Mixing Procedure

- 1) Break any materials over 75 mm dia. into smaller pieces, or discard.
- 2) Mix in required volume of **SMR** Soil Stabiliser.
- 3) Material is useable up to the following test fails: -

Gather a small quantity of treated material in your hand and squeeze into a ball. Drop from waist height. The material should break into several pieces. This indicates the material is compactable, passed the test and is ready for immediate use.

Note: -

To avoid surface staining, mixing must be carried out on a plastic sheet or board.

Should the material remain solid when dropped, either allow more curing time or add more **SMR** until the material is proven to be compactable by repeating the drop test.

Should the material shatter when dropped, mix in a small quantity of water and repeat drop test until the material is proven to be compactable.

Treated material **should** be used within 3-4 days of reaching a compactable Condition, however, in some soils, such as heavy clay this time can be extended, however, it is necessary to carry out a further drop test to ensure the material is still compactable before use. If the material has cured and bonded together causing it to fail the drop test, it is **essential** to re-treat with **SMR** and repeat the drop test until a pass is achieved.

Compaction and Backfill

All N.R.S.W.A. criteria to be followed i.e. a number of lifts, passes and other apparatus etc. In addition to the following: -

- 1) Prior to backfilling, sprinkle a small quantity of **SMR** onto the walls of the excavation.
- 2) In heavy clay type soils mix in approx. ½ bag per cubic metre of additional **SMR** to the final two layers to be compacted.