

Perma-Soil

Soil Stabiliser

ULTRA
CRETE



Turns excavated spoil into backfill within minutes. Ideal for use with small utility excavations, backfilling poles, water meters and water tobies.

- Appendix A9 approved
- Can be re-excavated
- Cost saving
- Eliminates the need to haul away spoil
- Reduces the need for virgin aggregates

Applications

UltraCrete Perma-Soil, Soil Stabiliser is a perfect solution for the backfill and reinstatement of small utility excavations. It is an effective solution for a whole range of applications, such as installing overhead poles, water metres, valve boxes and water tobies. It is suitable for use as an SMF (unbound) or a SMR (bound).

Technical

Perma-Soil can be hand mixed with spoil from a reinstatement before being compacted back into the excavation to provide an adequate backfill material/sub base. No special tools or complicated techniques are required. As spoil is excavated Perma-Soil is added and left to cure for a short time before reinstatement and compaction. It sets quickly, curing 85% within an hour, 100% within 24 hours.

Preparation

Survey moisture content determination.

- Take a handful of material and squeeze into a ball, should it hold together, sufficient moisture is present for Perma-Soil to be used and soil is classed as normal
- Should it fail to hold together a small amount of water should be added until the material can be classed as normal
- Should it exude moisture when squeezed into a ball, the soil should be classified as wet
Determine the suitability of materials to be used as per appendix A9 of the SROH
- Class B SMF Material - equivalent to Class B granular backfill material

- Class C SMF Material - equivalent to Class C cohesive/granular backfill material
- Class D SMF Material - equivalent to Class D cohesive backfill material

Mixing & Application as an SMF (Stabilised Material for Fill)

For a 12.5kg bucket - use 2-4 (25kg-50kg) buckets of Perma-Soil per cubic metre of spoil. When soil is saturated with moisture, it is advisable to use four 12.5kg buckets. Adequate moisture is necessary for satisfactory performance. Never use less than 25kgs (2 buckets) per cubic metre of soil. Wear gloves, dust mask and eye protection during application.

For a 25kg bucket - Use 1-2 (25kg-50kg) buckets of Perma-Soil per cubic metre of spoil. When soil is saturated with moisture, it is advisable to use two 25kg buckets. Adequate moisture is necessary for satisfactory performance. Never use less than 25kgs (1 bucket) per cubic metre of soil. Wear gloves, dust mask and eye protection during application.

To mix, place the spoil on a mixing sheet or board, next to the repair site. Add and mix Perma-Soil to the soil as it is excavated or while the repair is being made. Prior to backfilling sprinkle a small amount of Perma-Soil onto the walls of the excavation. Allow 30-60 minutes after mixing before backfilling.

Compact to 150mm layers as per specification for Highways Works Series 800, Section 802 - Compaction (5-9). Add additional stabiliser to the last lift when a stronger surface cap is desired or where heavy traffic is expected. The backfill

soil stabiliser should be compacted 60mm below the surface in footpaths and 100mm from the surface in type 3 & 4 carriageways.

Clegg Hammer Test

A Clegg Hammer Test is recommended once the compaction has been completed. Clegg value required: 18 IV for a footway, 21 IV for a carriageway.

The Clegg Hammer when dropped on the desired area will generate a reading. This is repeated 4 times more, yielding 5 readings. The 4th reading is the critical reading: it represents the degree of compaction being measured. If the 5th reading is within + 1 or - 2 units of the 4th reading, the value is acceptable.

Surface Reinstatement

Reinstatement should then be completed with installation of the surface material - Ultracrete Instant Road Repair® (available in 6mm or 10mm). Spray vertical edges of the reinstatement and apparatus and the compacted sub-base with UltraCrete SCJ Seal & Tack before the application of Instant Road Repair. When using 6mm Instant Road Repair a 60mm depth can be achieved by using the layer on layer method. Apply the product to a depth of approximately 45mm and compact to 30mm and repeat the same process to achieve a 60mm depth. For 10mm application apply the product to a depth of approximately 45mm and compact to 30mm, repeat the process to achieve the second layer and finally apply a 60mm layer and compact to 40mm to provide the final surface course.

Precautions

Perma-Soil will stain. Wear suitable protective clothing and eye/face protection. Avoid skin and eye contact. Do not use higher than the recommended amount of Perma-Soil because high mixture of pH may occur. High pH may cause corrosion or adversely affect the life of the buried services or components.

Storage

This product must be stored in unopened tub clear of the ground in cool dry conditions and protected from excessive draught. Storage and use information is based on laboratory field tests. However, the manufacturer neither warrants nor accepts liability for safety or for results obtained, since storage and use are beyond its control. Testing does not guarantee satisfactory performance in all conditions or situations. Adequacy of soil stabiliser for a particular application should be determined by testing it under anticipated soil and field conditions.

Shelf life

Shelf life in unopened containers from date of manufacture is 6 months. If stored correctly and used within 6 months of the date shown on the side of this tub, the activity of the reducing agent will be maintained and this product will contain, when mixed with water, no more than 0.0002% (2 ppm) soluble chromium (V1) of the total dry weight of the cement.

Health, Safety and Environmental

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash your hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste responsibly and in accordance with local authority requirements. A full material datasheet relating to this product is available from instarmac.co.uk

Quality assurance

All products are manufactured in a plant whose quality management system is certified / registered as being in conformity with BS EN ISO 9001. Our products are guaranteed against defective materials and manufacture, and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept any liability arising from the application or use of our products because we have no direct or continuous control over where and how our products are used. All products are sold subject to our conditions of sale, copies of which may

Technical data

Colour	grey
Yield	1000 litres (approx) per 25kg 500 litres (approx) per 12.5kg
Unit/packaging	25kg plastic bag (54 units per pallet) 25kg bucket (30 units per pallet) 12.5kg bucket (56 units per pallet)

Contact Us

Instarmac® Group plc, Birch Coppice Business Park, Danny Morson Way, Dordon, Tamworth, Staffordshire, B78 1SE, United Kingdom

Tel: +44 (0) 1827 254400 Fax: +44 (0) 1827 285386

Email: email@instarmac.co.uk Order: orders@instarmac.co.uk Website: instarmac.co.uk

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