CASE STUDY

SKELMERSDALE SOIL STABILISATION TERRACEM

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THE BRIEF

Bolton-based Combined Soil Stabilisation is a leading specialist subcontractor offering soil stabilisation and bulk earthworks services.

The business was awarded a contract to undertake a large earthworks and stabilisation works project with Volker Fitzpatrick for a major warehouse development being built in Skelmersdale.

As part of the extensive soil stabilisation process, the total hard-surfacing area of 70,000m^2 required lime and cement stabilisation to achieve the required levels of frost resistance, as well as meeting a 30% California Bearing Ratio (CBR) - the standard strength test for determining the bearing capacity of material.

Within a project window of just 12 weeks, it was imperative to find a construction materials partner with the right product supply – along with the logistics networks to deliver direct to site within such a tight timeframe. Enter Holcim UK and its innovative Terracem binder.

THE SOLUTION

Although the initial brief called for standard CEM I, Holcim UK was able to go one better by recommending Terracem. This specialist binder for soil stabilisation can help ensure greener and more efficient construction.

> “The initial plan was to use a standard cement blend. However, thanks to expert consultancy provided by the Holcim UK team, coupled with our knowledge of the product’s capabilities, we were very keen to opt for Terracem. The extra support given - with product trial demonstrations and an up-front full suitability mix design developed in a UKAS accredited laboratory - added real value to the project.”
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> **STEFAN STANSFIELD**
> **MANAGING DIRECTOR**
> **AT COMBINED SOIL STABILISATION**

Launched in 2018, Terracem is the UK’s first hydraulic binder specially formulated for use in soil stabilisation. Designed to strengthen existing onsite material without the need to import aggregates, Terracem has been specifically engineered to improve soils. The solution strengthens weak substructure layers to create a working platform while offering reduced embodied carbon.

A total of 1000 tonnes of Terracem was supplied during the project, helping to decrease embodied carbon by approximately 15% when compared to a standard CEM I solution.

Using the Terracem blend had the added benefit of a fast setting period, helping the on-site team to complete the project quickly during harsh winter weather conditions. Terracem also worked well with the wide variety of soil types treated during the project, such as sands, gravel, clays, silt and other materials used on site.

> “We are delighted with the project outcome. Our breakthrough Terracem blend offers a much more environmental approach to traditional ground engineering as it cuts down on material waste and the carbon emissions associated with hauling aggregates. We hope this latest project offers an even more conclusive case for the use of specialist binders in soil stabilisation as the ‘go-to’ method for greener and more efficient construction.”
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> **JOHN SHRIMPTON**
> **TECHNICAL DEVELOPMENT MANAGER**
> **AT HOLCIM UK**

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SITE AFTER TREATMENT

KEY DISCIPLINE

Soil Stabilisation

CLIENT

Combined Soil Stabilisation

PRODUCTS

Terracem

KEY STATS

1000 tonnes of Terracem
15% carbon reduction
12 weeks from specification to delivery