



## GROUND INSTALLATIONS

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### Huesker's HaTelit 'tried and tested'

Asphalt reinforcement can extend the service life of a resurfaced road by a factor of 3-4, says Huesker, developers of the HaTelit range of asphalt reinforcement. Aimed at preventing the propagation of reflective cracking from an old asphalt layer through a new surface course, Huesker claims the formation of reflective cracking is considerably delayed or even completely prevented using HaTelit C 40/17.

The reinforcement grid made from high-modulus polyester is combined in the factory with an ultra-thin nonwoven installation aid. Both are given a bituminous coating to ensure the optimum bond between the asphalt layers, an important parameter in the functioning of asphalt reinforcement (a reinforcing effect can only be achieved where the bond is capable of transmitting the forces).

The company carried out milling trials in conjunction with Mischwerk Schwelm (in 2004) and RWTH Aachen University, Germany (in 2008) to demonstrate that a polyester grid (in this case HaTelit) can be milled as normal and the millings can be recycled.

In one test, the wearing course was milled down to a few millimetres above the HaTelit, leaving the reinforcement in place during refurbishment, and no detachment or removal of fibres of the HaTelit by debonding was

observed (the millings were solely composed of the asphalt layer material).

In a second trial the asphalt surface course and the first 1cm of asphalt binder course (including reinforcement) were milled. The fibres of asphalt reinforcement produced from the milling were evenly distributed in the millings (over the whole test bed only two fibres had been trapped in the milling drum).



Unfilled row of gabions tied back with geogrids from Huesker

Another project in Germany included the use of Huesker's Fortrac geogrid for construction of a 10m high geosynthetic reinforced earth (GRE) wall as a noise protection system.

The wall's steep slope angle called for special measures to ensure adequate stability. Fortrac is particularly suitable due to its ability to carry high tensile forces at low extensions, low tendency to creep and good interlock with the reinforced soil. Only through these properties could the backfill to the gabions become the "monolithic earth block" that was specified.

The gabions make the noise protection wall into a 'green wall,' with about 90% of the baskets planted after completion of the works where approximately 35,000m<sup>3</sup> of geogrid were laid in a very short time.

**Huesker**

[www.huesker.com](http://www.huesker.com)