

Netpave 50

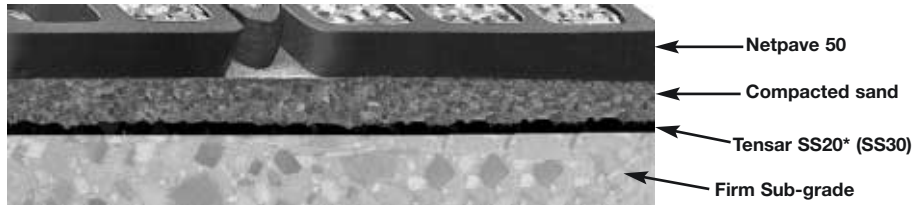
Netpave Trafficking Trials

Introduction

Trafficking trials have been carried out at the Transport Research Laboratory (TRL) in Crowthorne to assess the traffic support capacity of the Netpave 50 panels over firmer subgrades. The mean subgrade CBR value before trafficking was 6.8%

Construction

Tensar SS20* was placed directly on the formation with 20mm of sand compacted over it. The Netpave 50 panels were then placed on the sand layer and filled with rootzone material.

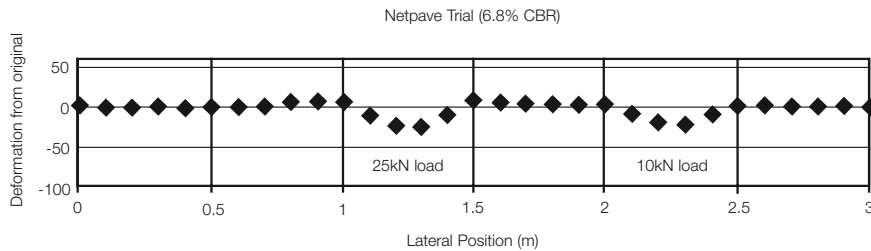


Trafficking

Initial trafficking of 33 passes of a 25kN wheel load on one wheel path was followed by 200 passes of a 10kN wheel load over an adjacent wheel path.

Results

The resultant maximum deformation in the wheel path of the 25kN wheel was 24mm with 22mm deformation under the 10kN wheel.



Discussion

This type of construction is designed for temporary car parking where the maximum wheel load is less than 5kN. The equivalent number of passes of a 5kN wheel over a single point on the pavement can be related to the actual trafficking by using an equivalency equation.

The equivalent number of passes of a 5kN wheel can be taken as the number of passes of the heavier wheel (N_x) x ratio of the wheel loads

$\left(\frac{P_x}{5}\right)$ raised to the power of 3.95.

$$N_5 = N_x \times \left(\frac{P_x}{5}\right)^{3.95}$$

For P_x = 25 kN and N_x = 33, N₅ = 14,416 passes
 For P_x = 10 kN and N_x = 200, N₅ = 3,090 passes

These figures show that substantial car traffic can be carried by this type of construction over formation soils with CBR values >7% with only small deformations resulting. Relatively random, rather than channelised traffic movements will greatly increase the amount of traffic that can be sustained.

***Tensar SS30 is recommended for improved structural performance in all applications.**

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