SIKA AT WORK
CONTAINER TERMINAL

CONCRETE: Sika Steel Fibres

BUILDING TRUST

CONTAINER TERMINAL

The Project
A container port holding yard typically needs to be sufficiently durable to tolerate a high volume of heavy container cargo, with all the machinery required to achieve that also putting a strain on the concrete surface.

Cracks can occur at any point throughout a concrete structure's lifetime. In the beginning, during the hardening process, the main concern is early-age shrinkage cracking. With older, hardened concrete, stress cracks can occur from loading.

Without a suitable support structure in place, the lifespan of a new holding yard would likely be short.

The Requirements
A recent specification aimed to solve this issue through a steel fibre framework. Reinforcing concrete in this way ensures cohesion in the fresh concrete, improving load capacity and ductility. Reinforcing concrete in this way improves cohesion in the fresh concrete, increases load capacity, ductility and abrasion resistance in the hardened concrete and ensures the finished flooring system is fully compliant with current fire regulations.

However, due to the specialised nature of these facilities and the stress that constant movement of 20ft cargo containers could place on the concrete, a very high dosage of steel fibres would be required. These types of fibres are more adept for fire and gas protection and crack reduction, compared to standard reinforcing.

The Solution
Sika worked with ready-mix concrete specialists to produce a cost-effective plan for surfacing these yards, ensuring it was robust enough to handle its freight requirements.

SikaFiber® Novocon HE1060 High Tensile Steel Fibres were suggested by the Engineers, reducing the overall fibre dosage required. This type of fibre is designed to withstand higher stress levels and provide maximum effectiveness when managing heavy loads.

Andy Taurah, Sika's National Fibres Manager, reflects: "This is a highly specialised product and it was perfect for this particular type of project. Conventional mesh is a traditional option, but we are able to provide a much more efficient solution.

"We can deliver the fibres directly to the concrete producer, ensuring there would be minimal disruption on site. They are able to lay the framework and then complete the project on time and budget critical projects.

"Having products like this available to us and the technical expertise to advise customers on using them tangibly adds value to specialist projects.

For further information call 0800 292 2572.

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