FIBERCON® FACTS

FIBERCON® Product Performance Information & Data

FAQ's* — Fibercon® Installation

*("Frequently Asked Questions")

FIBERCON® INTERNATIONAL

Can steel fibers replace two layers of wire mesh in slab on ground?

YES. Fibercon International has a computer program based on the Westergaard design approach, which will provide a fiber dosage rate for the replacement of one layer or two layers. A call to the Fibercon® engineering group will provide the answers to the concrete slab questions.

How are fibers added to concrete?

There are two very acceptable approaches to adding steel fibers. At the ready mix plant, one method is to add the fibers directly to the weigh hopper of the mixing system where the fibers can be added on an aggregate feed belt. Two, after the standard ingredients have been mixed, fibers can be added via conveyors or by hand to the mixing system. In addition, Fibercon International has developed a feed system to use with Fibercon's mega packaging system for large projects.

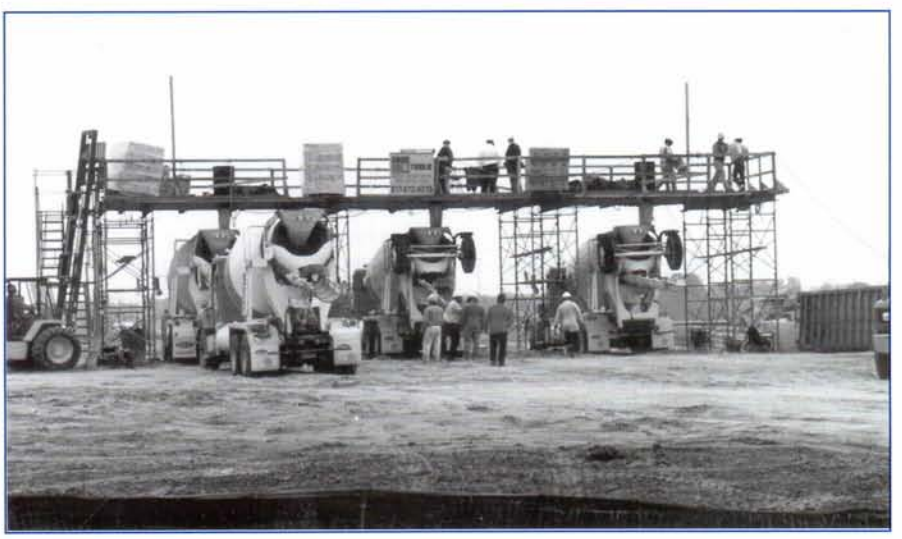
Do steel fibers "ball-up" when mixing?

Our standard products create no problem when introduced with one of the aforementioned systems. Special products with aspect ratios above 55 do require special handling. Special handling is typical with products over 2" in length.

The fibers are made from low carbon steel- what about rusting?

When proper methods of consolidation are used, such as vibrating, roller or laser screed most of the fibers are embedded at least 3/16" below the slab surface. Only those fibers in the surface have the potential to corrode. However, this will almost certainly not create a

"We put strength in concrete"



cosmetic problem. Within the matrix of the concrete it has been proven that corrosion of steel fibers is not a concern. In applications where finish is critical, such as in architectural panels the use of stainless steel fibers available from Fibercon International is recommended.

Why doesn't rusting lead to other problems?

The small mass of individual steel fibers, attributable to the fact steel fibers are only 3/4"-2" in length, prevents a build up of expansion stresses during the corrosion process. The discontinuous nature of steel fiber reinforcement also effectively eliminates galvanic corrosion. Hence, concrete spalling and scaling does not occur. Finally, past studies of structures like bridge decks conclusively prove that fiber corrosion will only occur to the depth of the concrete's carbonation, which is age dependent.

Can steel fiber reinforced concrete (SFRC) be textured?

YES. There are two provisions: one, the use of burlap drag is not recommended and two the texturing tool should only be pulled in one direction. If a vibrating, roller or laser screed is used prior to texturing there is less potential of fibers pulling out.

Can steel fibers reinforcement be used in the presence of a wire guidance system?

YES. Again, since steel fiber reinforcement is discontinuous it does not interfere with current flow in the wire guidance systems buried in the concrete. Unlike conventional reinforcement, no minimum cover is required.

Do steel fibers affect the slump of concrete?

Slump is a measure of consistency not workability. Adding steel fibers, particularly at higher concentrations, will give rise to an apparent loss in measured slump. This results from the fiber changing the viscosity of the concrete. When vibrating energy is applied the concrete will flow more freely. At dosage rates above 65-lbs./cu. yd. it is recommended that the mix design be reviewed. Enhanced workability can be achieved by using a water reducer plasticizer.

Can SFRC be pumped?

YES. Fibercon® SFRC can readily be pumped providing, as with conventional concrete, that the base mix contains sufficient mortar.

Can SFRC be placed and finished using conventional techniques?

YES. Use of standard construction methods will yield excellent results. Steel fiber reinforcement also offers a whole new dimension to modern large bay methods of floor construction - such as laser screed technology - as well as to more conventional techniques.

Are steel fibers compatible with concrete admixtures and additives?

The answer is definitely YES. Steel fibers will not alter the performance of any standard admixture or additive.

Non chloride accelerators must be used as required with all steel products.

Can steel fibers reduce construction cost?

YES. Possible reduction of the slabs cross-section is another opportunity to save money. The most obvious way cost can be reduced is by eliminating on site labor costs associated with handling and placing the wire mesh, which then translates into time savings.

ISO 9001 QUALITY
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