FIBERCON® DECK Master

PRODUCT SHEET

FIBERCON DECK MASTER™

Steel Fiber Reinforcement for Concrete

Why Fibercon's DeckMaster?

Composite steel decks are designed as a reinforced concrete slab with the steel decking acting as the positive reinforcement. Although a crack-free floor is always desirable, random cracks are to be expected in type of floor system. Cracks develop when the fixed frame of the building restrains the cast concrete from moving. Reinforcement is used to improve the serviceability of these structures.

Many engineers recommend using light welded wire fabric. This amount of steel can control cracking if it is placed and firmly supported within the top 1" of the slab. But as J. Tom Ryan, consultant and author of Composite Construction Design for Buildings writes:

> *"It's virtually impossible to keep the WWF near the top of the slab because it gets pushed down by the worker's feet, pump lines and the weight of the concrete. The fabrics final resting place is usually the top of the metal decking where it is of no value."*

DeckMaster with Fibercon steel fibers solves all these problems. There is no expense for installing the WWF and supports, plus the jobsite is a safer workplace. With DeckMaster the reinforcement for crack control is always in the right position.

Working with wire mesh or…

working with DeckMaster - "just mix and pump"

The new IBC 2015 and ACI 318 reference ANSI/SDI C1.0 specification from the Steel Deck Institute for the design of composite steel decks. This specification allows the use of steel fibers at a minimum dosage of 25 pounds per cubic yard. More fibers may be added for specific applications per manufacturers recommendation. DeckMaster can be changed to meet any fiber dosage requirement from 25 pounds to 50 pounds per cubic yard of concrete.

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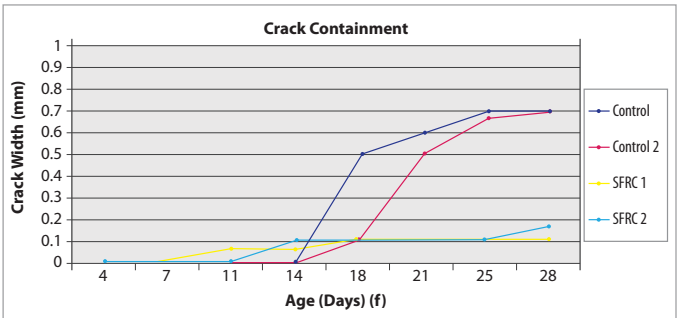
DeckMaster using Fibercon's engineered steel fibers is developed to meet all the engineers and contractors requirements for temperature and shrinkage reinforcement on composite steel decks.

PERFORMANCE

- Small randomly distributed fibers are an excellent means for providing crack-control
- ASTM C 1581 Restrained Ring tests show that FIBERCON's DeckMaster significantly reduces the average restrained crack width (See graphs)

This graph shows the effectiveness of 25 pounds of Fibercon DECKMaster steel fibers in controlling crack width openings:



Crack width is reduced by 75% when 25 pounds of DeckMaster is added to the concrete mixture.

PRODUCTIVITY

- No time wasted to place and support mesh. In the time it takes to place and tie the mesh to supports, concrete reinforced with FIBERCON's DeckMaster could have been placed.
- Improved scheduling

COST

- No material or labor costs for supporting mesh
- No crane time to get mesh to upper floors

SAFETY

- Mesh is a leading cause of trip hazards. There is nothing to trip over with DeckMaster.
- Lower workman compensation claims for all trades

"We've tried all the fibers and nothing is better than Fibercon. We don't have any problems pumping these fibers and we get very few fibers on the surface of our floors."

Steve Lloyd
Lloyd Concrete Constructions

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