



SIKA STEEL FIBER SOLUTIONS

FOR COMMERCIAL & INDUSTRIAL SLAB
ON GROUND CONSTRUCTIONS

BUILDING TRUST



IN TODAY'S CONSTRUCTION MARKET FIBER REINFORCED CONCRETE IS BECOMING THE FIRST-CHOICE REINFORCEMENT FOR MANY IMPORTANT APPLICATIONS INCLUDING SLAB ON GROUND, TOPPING SLABS, INFILLS, FOOTINGS, TUNNEL SEGMENTS AND SHOTCRETE. IT IS OFTEN USED AS A COST-EFFECTIVE, EASY-TO-USE ALTERNATIVE TO TRADITIONAL STEEL REINFORCEMENT, OR TO ENHANCE OTHER PROPERTIES.

SikaFiber® Novocon CHE8060HT

A cold-drawn, high-strength, collated hooked-end steel fiber that provides optimum performance in warehouse and industrial concrete floors. With minimal dosage, it effectively reduces the CO₂ footprint in industrial super flat floor spaces.

PHYSICAL PROPERTIES

Length: 60 mm
Diameter: 0.75mm
Tensile Strength: 2,100 MPa
Aspect Ratio: 80
Fiber Count: 4800 fibers per kg
Modulus of Elasticity: 200GPa



Compliance: SikaFiber® Novocon® CHE-8060 HT complies with the following standards.

- ▶ European Standard: EN 14889-1:2006 Fibers for Concrete, Part 1: Group I
- ▶ ASTM Compliance: ASTM A820/ A820M-04, Type I cold drawn wire
- ▶ CE Mark: 16349064 EN14889-1

Average residual flexural strength according to EN 14651 in C40/50 concrete mix

Fibre Type: CHE8060HT	CMOD 0.5mm: Fr1	CMOD 1.5mm: Fr2	CMOD 2.5mm: Fr3	CMOD 3.5mm: Fr4
Fibre Dosage 10kg/m ³	2.0 N/mm ²	2.3 N/mm ²	2.6 N/mm ²	2.8 N/mm ²
Fibre Dosage 20kg/m ³	3.6 N/mm ²	3.9 N/mm ²	4.0 N/mm ²	4.0 N/mm ²

ADVANTAGES OF STEEL FIBERS OVER CONVENTIONAL WELDED WIRE MESH

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- DURABLE:** No requirement of maintaining a minimum cover to reinforcement.
- SAFER:** No transportation, cutting, bending and fixing of steel hence reduce the injury risk of workers and public.
- EASY TO TRANSPORT:** No need of large trucks or trailers to move around as the fiber comes with concrete.
- LESS LABOUR:** No cutting and fixing of steel hence less labour cost and faster to use.
- IMPROVED HARDENED STAGE PROPERTIES:** Improves impact resistance, abrasion resistance, shear strength and toughness of concrete.



AREAS OF APPLICATION

- ▶ Ground supported slabs: Industrial or commercial jointless slabs.
- ▶ Tunnel segments
- ▶ Hardstands
- ▶ Road and repair works
- ▶ Boat ramps, spillways and drainage channels
- ▶ Precast and in situ concrete footings and infills
- ▶ Footings and infills

SUPPORTING PRODUCTS

Sika® WT- 200P

Water resisting and crystalline waterproofing concrete admixture used to reduce the permeability of concrete and to enhance the self-healing abilities of the concrete.

Item code:
5488827 10.5kg



Sika® Film

Evaporation control and finishing aid liquid concentrate which controls the moisture evaporation from the freshly cast concrete flatwork surface in addition to functioning as a finishing aid.

Item code:
493033 10L



Sika® Antisol-15 SF

Water-based acrylic membrane that protects concrete from loss of water during the early stage of concrete curing, eliminates dusting and promotes surface hardening of concrete.

Item code:
840530 10L



Sika® Rugasol C, MH & FC

Concrete surface retarder that dries forming a tough, water-insoluble, abrasion resistant film for horizontal and vertical construction joints and surfaces.

Item code:
480621 5L Rugasol C
493043 10L Rugasol C
493092 10L Rugasol MH
915652 10L Rugasol FC



Sikafloor® CureHard-24

Sodium silicate, water based transparent surface hardener, dust proofer, densifier and impregnating sealer for fresh or hardened concrete.

Item code:
480474 5L
412200 10L



Sikaflex® Pro-3 Purform

One-component, moisture-curing, PU technology, elastic joint sealant with high mechanical and chemical resistance for construction and movement joints in concrete.

Item code:
617759 600ml SSG



ASSUMPTIONS AND WORKING INSTRUCTIONS FOR FIBRE REINFORCEMENT COMPARED TO STEEL MESH

PERFORMANCE: The performance of fiber reinforcement may vary depending on the specific application, mix design, and environmental conditions. Users should conduct their own tests to determine the suitability of the product for their specific needs.

DURABILITY: The overall durability of the concrete structure depends on various factors, including the quality of the concrete mix and environmental conditions.

SAFETY: The reduction in injury risk is based on the elimination of certain tasks associated with steel reinforcement. However, standard safety protocols should still be followed during the handling and application of fibre reinforcement.

TRANSPORTATION AND LABOUR: The ease of transportation and reduction in labour costs are general benefits and may vary depending on the scale and specifics of the project.

CRACK CONTROL AND HARDENED PROPERTIES: The improvement in crack control and hardened stage properties is based on typical performance characteristics of fibre-reinforced concrete. Actual performance may vary depending on the specific mix design and application.

TESTING AND COMPLIANCE: All claims regarding the performance of fiber reinforcement are based on compliance with relevant standards, including EN 14889-1, ASTM C1116/C1116M and ACI 544.4R. Users should ensure that their application meets these standards.

EASY FINISHING: While conventional tools can be used, the finishing process may require adjustments based on the specific characteristics of the fibre-reinforced concrete. It is recommended to conduct a trial application to determine the best finishing practices.

The information, and the recommendations relating to the application and end-use of Sika's products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, ground conditions, substrates, loadings and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Australian version of the Product Data Sheet for the product concerned, copies of which will be supplied on request. PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.

SikaFiber® SOFTWARE

For Fiber-Reinforced Concrete Calculations

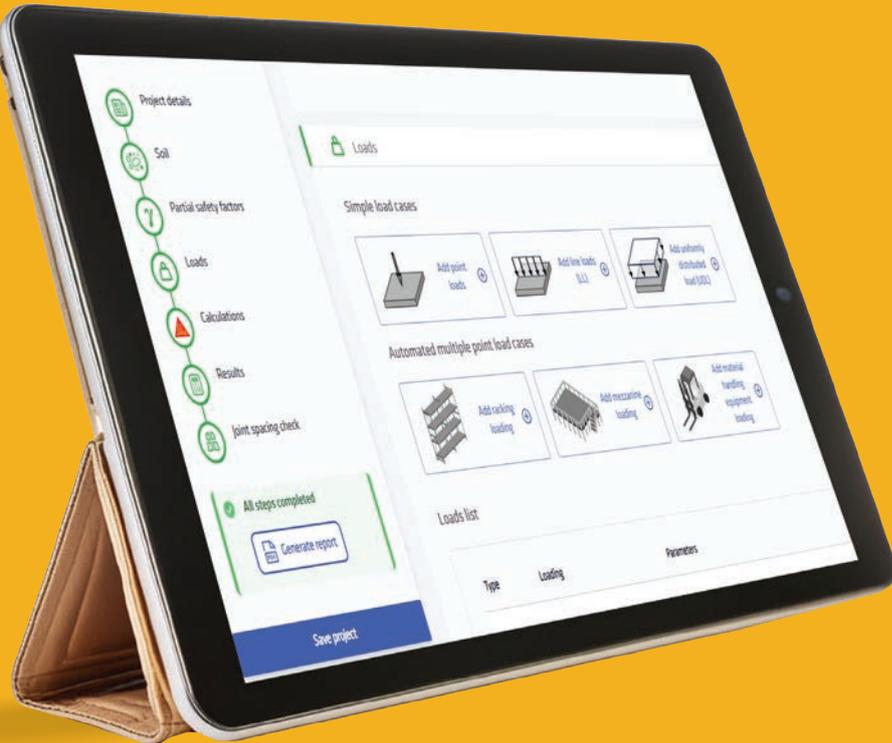
Sika has developed new software for calculating the amount of SikaFiber® required for slab on grade fiber reinforced concrete (FRC). This efficient tool is suited for professionals with expert knowledge in this application

- ▶ Free licensed, cloud-based software
- ▶ Can be used with tablets and PC computers
- ▶ Complex calculations in minimal time
- ▶ Available in multiple languages



**FAST,
COMPLIANT
FREE**

**SCAN FOR DOWNLOAD LINK,
DEMONSTRATION VIDEOS
AND MORE INFO**



WE ARE SIKA

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, flooring as well as roofing and waterproofing systems.

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