

# Steel fibers reinforcement concrete

Industrial floors, rigid pavement



# AUBER

## Steel fiber for concrete reinforcement

### Technical advantages

- An increase in load bearing capacity due to the redistribution of stresses.
- Reinforcement throughout the full depth offers excellent crack control.
- Optimal resistance against impact and dynamic loads.
- Concrete retains load carrying capability after cracking has occurred
- Joint spacings can considerably be increased.

### Construction Advantages

- No time consuming placing of the mesh.
- Reinforcement always in the right place.

### Steel fibres:

Steel fibres are characterised by high E-modulus (200 GPa) and high tensile strength (2,500 MPa). They prevent creep of the concrete but don't counteract early-age shrinkage. If any corrosion occurs, it won't cause spalling of the concrete – just a change of colour on the concrete surface. Protruding steel fibres can pose a risk of injury or damage to waterproofing membranes.

### Economical advantages

- The use of AUBER reinforced concrete reduces the construction time of the floor compared to mesh reinforcement.
- The floor thickness can be reduced by using AUBER steel fibers.
- AUBER steel fibers with a high l/d ratio offer the most economic solution.
- AUBER steel fiber floor offers the best cost/performance ratio.





Shopping malls Slab



Full-scale testing



Steel fiber reinforced concrete Installation



Slab construction

### Application

- Warehouse
- Production Facilities
- Industrial Slabs
- Shoping Malls
- Convention centers
- Road
- Footing



**AUBER**  
FIND YOUR WAY

## ➤ **Auber quality, testing, technical support and batching**

Karmin is a member of the Quality Scheme for Ready-Mixed Concrete (QSRMC) and all our products carry the accreditation.

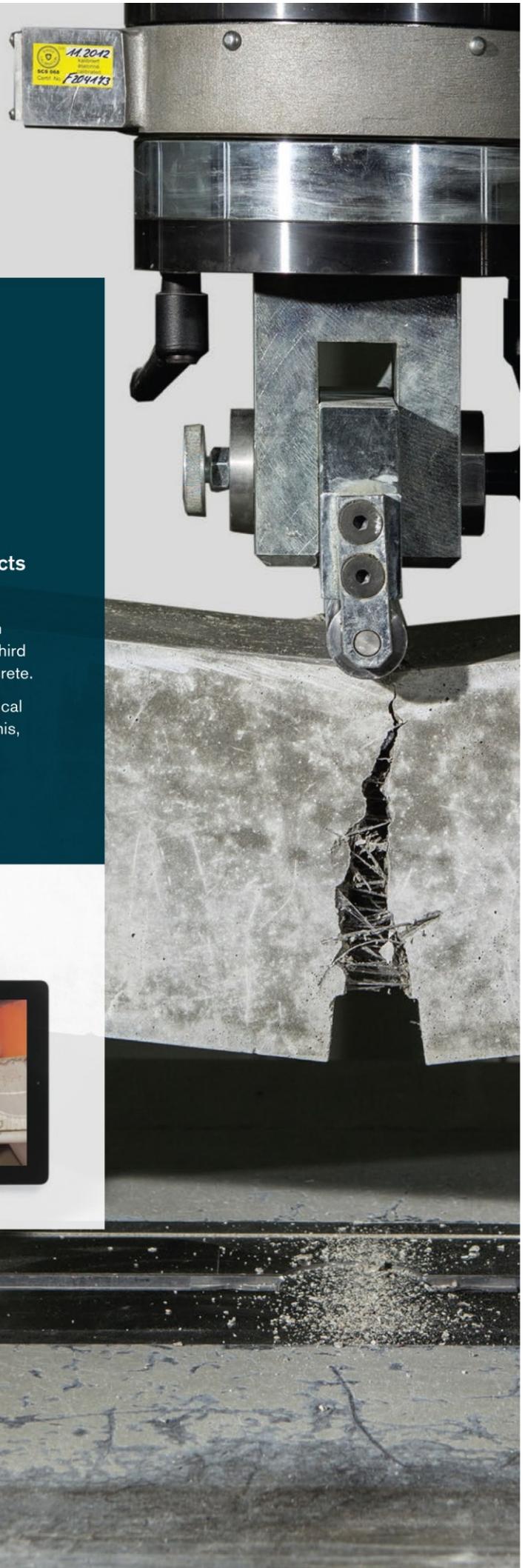
Samples are tested at our national UKAS accredited laboratory in accordance with current European and British Standards under third party accreditation by the Quality Scheme for Ready-Mixed Concrete.

We provide nationwide technical advice, with our concrete technical managers offering expert guidance and site support. Alongside this, we are supported by technical managers.

All our plant batchers are fully trained to ensure every fiber delivery is of the highest quality.

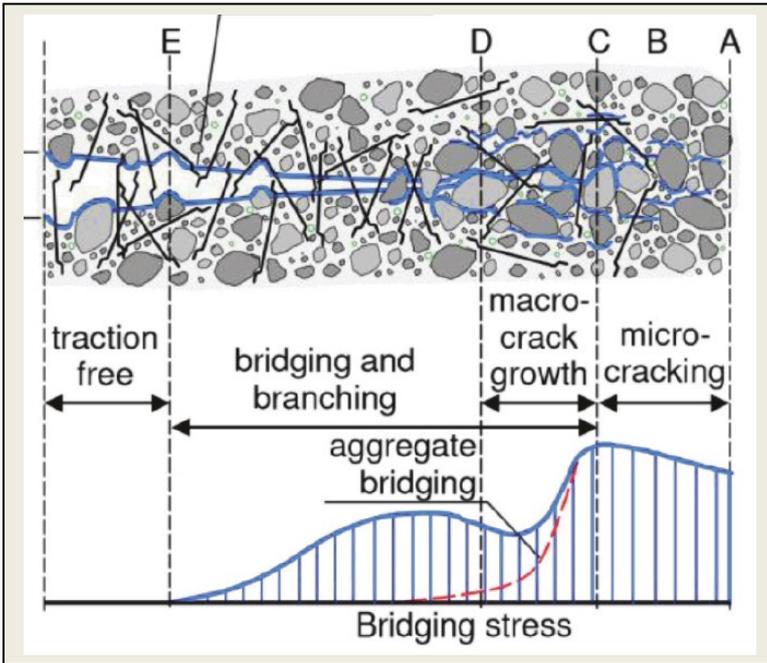
## ➤ **See Fibre Concrete in action**

Visit our website  
[auber.com.vn](http://auber.com.vn) or our mail  
[auber.vn@gmail.com](mailto:auber.vn@gmail.com)



# Steel Fiber for Concrete Behavior

# Fiber dosing and testing



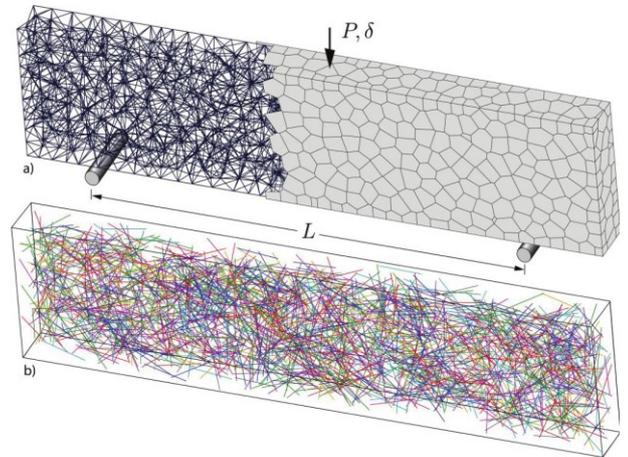
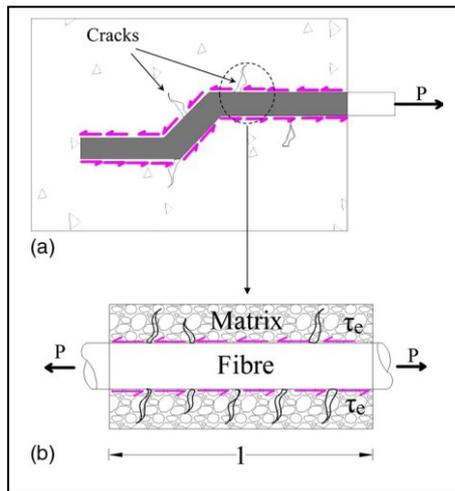
Effet from fibres on concrete



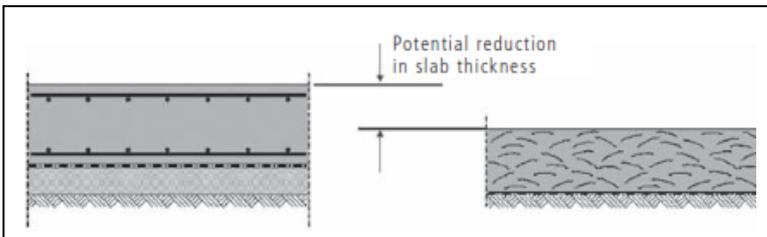
Flexural 3 point testing  
(Residual strength of steel fiber in concrete)

The performance of the fiber depends on:

- Aspect ratio  $l/d$
- Tensile strength of wire
- Fiber shape (HE hooked end, TABIX)



SFRC Model  
(Abaqus software)



## Conclusions

- AUBER Steel fibers offer the same behavior as traditional reinforcement.
- Same load bearing capacity as double mesh.
- Same deformation as a double mesh floor.

Website contact with AUBER  
[www.auber.com.vn](http://www.auber.com.vn)

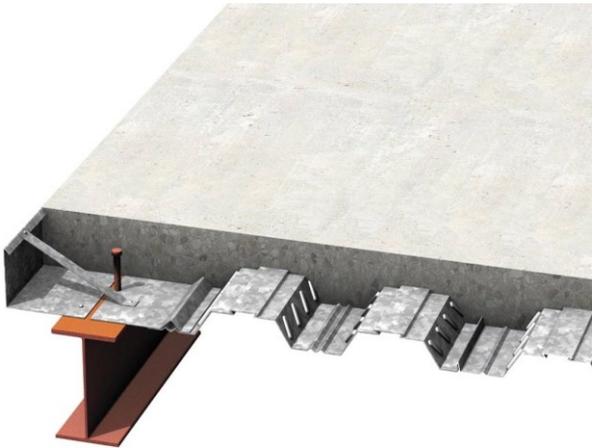




Decking slab



Content testing on site



Decking slab detail



Piled-supported slab



Concrete precast elements / Refractory concrete / Industrial floors /  
Security technology / Tunnel construction / Traffic areas / Residential construction

Should you require further information please contact us for:

- Information
  - AUBER floor with sawcut joints
  - AUBER jointless floors (without sawcut joint)
  - AUBER slab on pile
- Application specifications
- Design advice and assistance
  - fast
  - professional website
  - warranted
- AUBER specifications on floor executions
  - product data sheets
  - AUBER Tool design online
  - testing for each project
- Assistance in optimizing the mix design
- On-site support
- Professional cooperation for R&D and application development

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For ordering and design only use official specifications and documents.

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