Steel fibres
Flooring applications
WireSolutions is part of the ArcelorMittal Group, the number one steel company in the world. Major product lines of the unit are industrial wires (bright, galvanised, annealed, coppered...), agricultural products (fencing, barbed wire...), and steel fibres for concrete reinforcement.

ArcelorMittal has been producing steel fibres for over 30 years and is one of the leading suppliers of steel fibres worldwide. Through a local presence, ArcelorMittal aims to be closer to its customers to improve its service.

All the fibres manufactured by ArcelorMittal are made of cold drawn, high tensile steel wire produced using the most modern equipment. Our policy of continuous investment helps guarantee the durable performance of our products which are manufactured ISO 9001 and ISO 14001 standards compliant. All our fibres have CE-marking.

Transforming tomorrow.
Steel Fibre Reinforced Concrete (SFRC)

Steel Fibre Reinforced Concrete (SFRC) is a modern composite material. By adding fibres to the concrete, a load-bearing capacity similar to traditionally reinforced concrete is obtained. Compared to traditional mesh/bar solutions, SFRC provides better crack control.

For an increasing number of applications, the load bearing resistance of SFRC allows the partial or complete substitution of traditional reinforcement. The use of SFRC technology brings major time and cost saving.

Flooring solutions

TAB-Fiber™

A ground bearing slab commonly used in industrial and commercial buildings or warehouses. Sawn joints are cut into the top of the slab to help control shrinkage cracking.

TAB-Floor™

A state of the art solution for industrial flooring. TAB-Floor™ jointless industrial floors use special steel joint profiles to allow the construction of single bays of up to 2500 m². TAB-Floor™ technology offers many advantages.

Technical support

- Design assistance.
- Research & Development department.
- Support in concrete mix design.
- New market led applications.

Local assistance

- Support on job sites all over Europe.
- Consultation at the early planning stage.

Design on demand

- Design notes based on latest research results.
- Fast design request response.
TAB-Fiber™

Industrial flooring solutions

A high quality ArcelorMittal flooring solution.

A ground bearing SFRC slab commonly used in industrial and commercial buildings or warehouse. Possible shrinkage cracking is avoided by saw cutting joints into the surface of the slab up to a depth of 1/3 of the slab thickness. The usual distance between saw cut joints is from 4 x 4 m to 8 x 8 m.

TAB-Fiber™ floors can be used where joints cut into the slab are not will not disrupt the general use of the floor.

Advantages

Steel Fibre Reinforced Concrete for flooring applications has been successfully used for many years.

- Improved crack control.
- Reduced slab costs.
- Reduced construction time.
- Simplified job site operation.
- No reinforcement placement mistakes.
- Eliminates handling of reinforcement.
- Generally no need of concrete pumping.
- Assists the use of Laser Screed.
- Good impact resistance.

With ArcelorMittal fibres, you have Steel Fibre Reinforced Concrete of highest quality and reliability!
Fibre dosage for slabs on grade (compared to two layers of mesh with concrete cover of 30 mm)

Fibre: ArcelorMittal HE 1/50 (Diameter: 1.0 mm, Length: 50.0 mm)
Concrete: C20/25
Table can be used for pre-design only!

<table>
<thead>
<tr>
<th>Mesh</th>
<th>Slab thickness in cm</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
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<tr>
<td>Q131 or Ø5/150/150</td>
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<td>Q188 A or Ø6/150/150</td>
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<td>Q221 or Ø7/175/175</td>
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<td>Q377 A or Ø7/100/100</td>
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<tr>
<td>Q513 A or Ø8/100/100</td>
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</tr>
</tbody>
</table>

HE

TABIX

HFE
TAB-Floor™

Industrial flooring solution

A state-of-art solution for industrial flooring.

TAB-Floor™ jointless industrial floor technology allows single bays of up to 2500 m². Saw cut joints are not required. High quality steel joint profiles that provide durable shear load transfer and allow free horizontal movements in all directions can be installed at distances of up to 50 m.

Advantages

Steel Fibre Reinforced Concrete has been successfully used in jointless floor applications for many years.

- Reduced slab thickness.
- Bays of up to 2500 m².
- Reduced curling.
- No need for saw cut joints.
- Joints edges protected by steel profile.
- Improved crack control.
- Improved ductile behavior.
- Excellent impact resistance.
Mixing of steel fibres

At batching plant or jobsite

Depending on the individual conditions, loads and application, we offer the right fibre and a custom made dosing solution for your project.

ArcelorMittal flooring steel fibres

ArcelorMittal’s long experience in the field of SFRC technology has enabled us to design and produce fibres that are best suited for each flooring application.

HE (Hooked End) is the world’s best known and mostly used fibre type, which combines good workability and fair performance.

TABIX is an undulated fibre. By optimising the wave length ratio, ArcelorMittal has achieved fair workability and very good performance. The biggest advantage of this fibre type is its excellent shrinkage control.

TWINCONE® is a unique straight fibre with conical heads at each end. The cones assure total anchorage of this fibre in the concrete matrix, which means that the fibre can be stressed up to the wire’s tensile strength without being pulled out from the matrix.

HFE is one of the latest fibres to be developed. It combines the advantage of fibres with both hooked and flattened ends. Static performance of this fibre and workability are improved.