



# Floormart.in

Under floor. In floor. On floor.

## Steel fibres for industrial floors



*Dramix® glued together in bundles :*

# Dramix®

@ BEKAERT

- is the only guarantee for a homogeneous distribution.
- allows the use of fibres with high l/d ratio.
- can easily be added in the batching plant or in the truckmixer.

- Dramix® steel wire for high tensile strength.

- Mechanical anchorage (hooks) at the ends for optimal pull-out resistance.



### PRACTICAL

#### Construction Advantages

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

**FASTER**  
+15% to 30%

## ECONOMICAL

### Economical advantages

**CHEAPER**  
-10% to 30%

- The use of Dramix® reinforced concrete reduces the construction time of the floor compared to mesh reinforcement.
- The floor thickness can be reduced by using Dramix® steel fibres.
- Dramix® steel fibres with a high l/d ratio offer the most economic solution compared to other types of steel fibres.
- A Dramix® steel fibre floor offers the best cost/performance ratio.

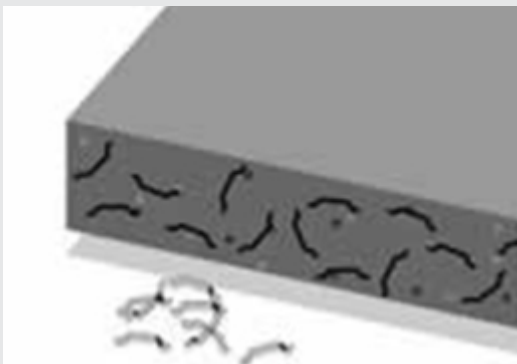
## ECONOMICAL

### Economical advantages

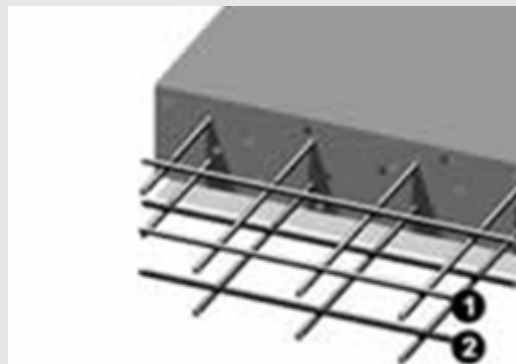
**BETER**

- 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.
- Joint spacings can considerably be increased.

### Dramix® versus double mesh



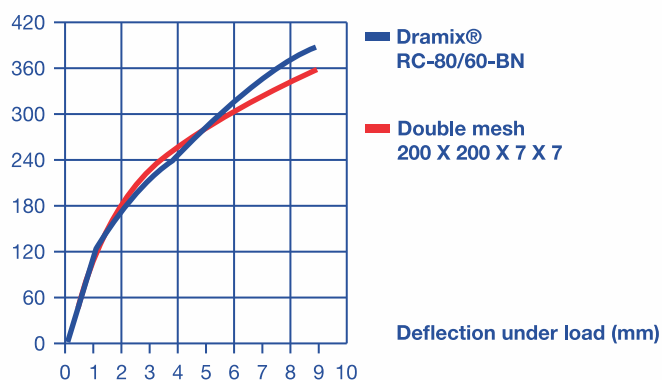
**Dramix® RC-80/60-BN 30 kg/m<sup>3</sup>**



**Double mesh 200 x 200 x 7 x 7**

### Conclusions:

- Dramix® Steel fibres offer the same load bearing capacity as double mesh.
- Same deformation as a double mesh floor.



## Fibre dosing and mixing



- For easy handling, Dramix® steel fibres are packaged in heavy duty paper-bags of 20 kg, with 60 bags per pallet.
- The Dramix® steel fibres are then poured onto a conveyor which distributes them into the truck mixer.
- Empty paper bags may then be recycled.

By using a conveyor belt and following the Bekaert recommendations for mixing, an excellent distribution of the fibers is achieved.

*The recommendations for mixing, can be found on the product data sheets on our homepage [www.bekaert.com/building](http://www.bekaert.com/building)*

## Automatic dosing equipment:



- Minimal manual handling
- Benefiting from precise dosing and automated integration of Dramix® steel fibres into the mix.
- The optimum solution for large steel fibre volumes (> 300 t p.a.)
- High productivity (0 - 3,5 kg/sec)
- Excellent mixing results

Ideal for collated Dramix® steel fibres as they need smaller volume to store. Efficient material supply in big bags of 1100 kg, less intervals to feed the dosing equipment.

*Ask for individual advice from your local Bekaert specialist.*

## Aspect ratio

A key factor in quality fibre concrete is the relationship between the length and diameter of the fibres: the higher the l/d ratio, the better the performance.

Dramix® /d

**45** ★ Standard Performance

**l/d 45: the basic requirement**

Dramix® /d

**65** ★★ Premium Performance

**l/d 65: for quality concrete**

Dramix® /d

**80** ★★★ Super Performance

**l/d 80: for maximum performance**

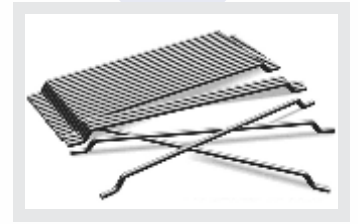
Flooring & Paving



SFRC (Steel Fiber Reinforced Concrete) has a distinct advantage over plain or reinforced concrete in “slab-on-grade”, i.e. industrial floorings, concrete pavements, ground slabs, etc. where the loads are both static and dynamic. Under dynamic loading, plain concrete slabs crack quite easily losing their capacity to carry loads. These cracks further enlarge with passage of time and need costly repairs. SFRC slabs on the other hand work on the principle of load redistribution.



Toughcrete



Toughcrete+

Addition of **Toughcrete** or **Toughcrete+** to concrete significantly improves the post-cracking strength of SFRC slabs. This is because of the crack controlling mechanism provided by **Toughcrete** / **Toughcrete+** by transmitting some of the tensile stresses across the crack and also resisting growth of the crack.

Reinforced concrete slabs, have disadvantage of the costly, labourious, time consuming and at times - hazardous process of installation of reinforcement mesh. Hence, SFRC slabs are the best, most scientific and longer lasting solution for all types of floorings and pavements.

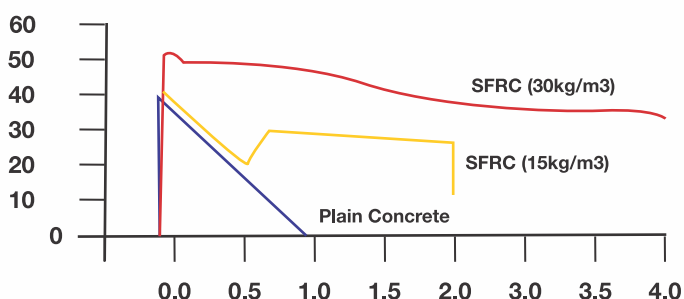
#### Benefits of Toughcrete & Toughcrete+ in Flooring & Paving

- Improved crack resistance
- High energy absorption
- High impact resistance
- High fatigue resistance
- Increased Shear resistance
- Increased flexural strength
- Better Corrosion resistance
- Full reinforcement of the slab
- Better overall performance of the slab




#### Commercial advantages of ToughCrete in Flooring & Paving

- Reduction of slab thickness upto 25% compared to plain concrete hence saving of concrete
- No hassles of installation of reinforcement hence saving of time and labour
- Direct saving in cost compared to the cost of steel for reinforcement
- Faster concrete pouring, especially with laser screed equipment
- Greater speed of spreading concrete hence saving of labour
- Longer service life of slabs, hence lower life cycle cost.







## Application of ToughCrete & ToughCrete in Flooring & Paving

•Flooring of warehouses •Floorings of container yards and stockyards •Floorings of all kinds of factories •Flooring of parking areas and driveways of residential as well as commercial buildings •Airport runways and taxiways •Pavements of highways and city roads •Arterial roads in rural areas •Foot paths in cities

***For optimum results of Toughcrete & Toughcrete+ kindly read the hand-out- 'Get the best out of Toughcrete & Toughcrete+' on usage; Dosage; Packaging and safety precautions provided by us separately***