FIBERMESH®

FREQUENTLY ASKED QUESTIONS

Finishing

1. Do Fibermesh® fibers affect the concrete set time? No

Fibermesh fibers in concrete are purely mechanical in nature and, therefore, have absolutely no impact on the setting time of concrete. The setting time is a chemical function impacted by factors such as time and temperature. Water content and chemical admixtures also have an influence on set time.

2. Do Fibermesh fibers affect placement or finishing of concrete? Yes

Concrete placement and finishing are affected in a positive way. The homogeneous and cohesive properties of Fibermesh reinforced concrete impart uniform bleed across the concrete. As a result there is plastic settlement control, pumping ease and placement and finishing benefits attributable to Fibermesh fiber reinforcement.

3. Does Fibermesh fiber reinforced concrete require additional water for placement? No

Fibermesh fiber reinforced concrete has the advantage of reduced settlement and more uniform bleeding. To the uninformed eye, this may make the concrete look drier and unnecessary additional water. The typical saturated appearance of mixing water coursing to the surface in non-fiber concrete is absent when Fibermesh fiber reinforcement is employed. Workability is not affected with standard application rates of fiber reinforcement and no additional water is needed.

4. Do Fibermesh fibers produce objectionable fibers on the surface of concrete? No

When excessive fibers are apparent on the surface of the concrete, this usually indicates the concrete has been overworked or the finishing procedures started too soon. Overworking and early finishing have the adverse effect of bringing more paste to the surface, which would naturally include fibers. Some fiber designs tout the finishing and aesthetics of the fiber at the expense of all other performance characteristics. To adjust finishability characteristics with no regard for performance, the finisher could wrongly choose smaller denier, shorter length, and reduced volumes of fibers. Typically, this downgrading of the fibers produces meager post-crack Residual Strength results. Some fibers on the market may be used to reduce plastic crack formation at standard application rates, however, these same fibers may fall short when viewed as a replacement for temperature steel because of their meager Residual Strength test results.

5. Does Fibermesh® fiber reinforced concrete require different joint spacing than non-fiber reinforced concrete? No

ACI, PCA and the contractors' field experience determine recommendations for joint spacing for concrete. Extended joint spacing does not preclude the formation of visible cracks; it only allows the concrete to choose the location of this type of crack formation. The use of any secondary reinforcement, does not eliminate random cracking should extended joint spacing be utilized.

VISIT OUR WEBSITE
WWW.FIBERMESH.COM

CUSTOMER SERVICE:

NORTH AMERICA
+1.800.621.1273
ext. 1-1

LATIN AMERICA
+1.813.285.2287

EUROPE
+44.1246.564200

OR YOU CAN CONTACT US AT: ORDEREXPRESS@PROPEXGLOBAL.COM

6. Can Fibermesh fiber reinforced concrete be hard troweled? Yes

Fibermesh fiber reinforced concrete can be hard troweled. As with all hard trowelling, excessive trowelling may cause the concrete to blister with or without fibers.

7. Can Fibermesh fiber reinforced concrete be broom or tine finished? Yes

When a broom finish is required, ensure that the equipment being used to apply the finish is maintained and clean. The angle of the broom should be low with all passes being made in the same direction. A few fibers may be dislodged during the brooming or tining operation; however, polypropylene fibers designed for concrete are non-UV stabilized for this reason. When the non-UV stabilized fibers are exposed to the elements, they become brittle and are removed by wear to the surface of the concrete, where they are encased in cement paste and unaffected by the elements.

8. Can Fibermesh fiber reinforced concrete permit early form stripping? Yes

Fibermesh fiber reinforced concrete develops an isotropic quality, having a uniform quality cross section, which allows the concrete to stiffen and set from the inside out.

9. Can the impact or visibility of the fibers at the surface of the concrete be reduced? Yes

There are tips that can be used when finishing fiber reinforced concrete to reduce the number of fibers present at the surface. Starting with a properly proportioned concrete mix to accommodate the fibers between the aggregate is important. It is also important not to “over-water” the mix to improve flow. The use of water reducing admixtures to maintain strength while improving workability is always recommended. Timing of the finishing operation can sometimes be tricky because the fiber reinforced concrete may look like the concrete is setting up faster due to the cohesive nature of the material.

A vibrating screed, a roller screed or a laser screed really enhances the finishing of the concrete. The action of the screed pushes the coarse aggregate down and brings the mortar up to the surface. In fiber reinforced concrete, the screed actually helps encapsulate those fibers at the surface of the slab within the mortar.

10. Are the saw cutting joints different with fiber reinforced concrete?

It depends on the fiber type

New clean saw blades are recommended for crisp saw cuts. The timing of the sawing is critical so as not to pull up macro synthetic and steel fibers. If fibers are exposed delay the saw cutting process to allow the concrete additional cure time.

Fibermesh macro-synthetic fiber does not have as much of a tendency to be ‘pulled’ to the surface during finishing operations making this fiber an ideal candidate over steel fibers which are more rigid and can cause problems along joints when saw-cutting operations are underway.

For steel fiber (Novocon) reinforced concrete slabs on ground, the saw cut using a wet conventional saw should be 1/3 of the slab depth. When early entry saws are used the depth can be the same as for plain concrete for lower dosages of steel fibers and 1 ¼ inches minimum depth for higher concentrations of steel fiber dosages.

VISIT OUR WEBSITE
WWW.FIBERMESH.COM

CUSTOMER SERVICE:

NORTH AMERICA
+1.800.621.1273
ext. 1-1

LATIN AMERICA
+1.813.285.2287

EUROPE
+44.1246.564200

OR YOU CAN CONTACT US AT: ORDEREXPRESS@PROPEXGLOBAL.COM

PCS-1176E-001 (08/2016)