Fibermesh steel fibers are referred to as structural fibers and are intended to carry load and therefore, used to replace traditional reinforcement in certain structural applications.

- Fibermesh Steel fibers should never be the first item in the concrete mix. Fibermesh steel fibers may be added to the concrete mix:
  - Aggregate during weighing
  - Aggregate during charging
For best results:
  - Central mixer after charging
  - Ready mix truck after charging

- Introduce steel fibers into the concrete mix either manually or with a conveyor at an even and continuous flow (ribbon feed) to avoid the fibers piling up on the concrete mix or on the mixer blades since this can lead to fiber balling.

- Some steel fibers, with higher aspect ratios (length/diameter), are collated or glued together in clips to aid the batching process. The clips are added to the concrete, which are dispersed during mixing. The mixing action of the concrete breaks up the collated clips into individual fibers.

- The concrete must be mixed at high speed for 5 minutes, or 70 revolutions, after the addition of Fibermesh steel fibers to ensure uniform distribution. Mixing time may vary due to wear on blades, blade arrangement and cleanliness of mixer.

- Fibermesh steel fibers are compatible with admixtures.

- The addition of fibers into concrete tends to reduce the slump of concrete. This reduction in slump is “apparent,” or it appears to suffer from a loss of workability or it appears very stiff. The concrete can actually become very fluid with the use of vibration. The addition of fiber increases surface area in the concrete matrix, also the fibers can hold aggregate in place (reduce segregation) this combination contributes to the apparent slump loss. A rough estimate is that the expected reduction in slump for steel fibers is about 1 inch for every 25 pounds per cubic yard (pcy) of fiber.

- The use of super-plasticizers or mid-range water reducers will assist in increasing the workability without altering the water cement ratio.

- It is recommended that a trial batch is performed, to ensure that any adjustments necessary are made.

See Novocon steel and Novomesh 850 blended fiber data sheets for recommended dosages.