



## TECHNICAL BULLETIN FC-10

# FAQ'S ON PUMPING & FINISHING FRC

**Q:** What needs to be done to improve the 'pumpability' of a fiber mix?

**A:** For most cases, a "good pumpable mix" can accommodate fibers with little to no adjustments made. Often in the field, because FRC looks different and more cohesive, users will want to add water to make the concrete 'flow better'. This can sometimes cause the situation to become worse as too much water will actually cause a mix to segregate and can block a pump hose. When discharging an FRC mix into a hopper assembly on a pump truck, raise the chute of the Ready-Mix truck 12 to 18 in. (300-450 mm) above the grate (if a grate is present) on the pump to allow for the fibers to 'impact" the grate and help them pass through. A working vibrator on a grate will also improve the FRC's ability to pass through the grate.

**Q:** Can I reduce the impact or visibility of fibers at the surface of a concrete floor?

**A:** This is no absolute guarantee that fibers will not be visible on a polished concrete floor when FRC is used but there are 'tips' than can employed to improve the chances to reducing the number of fibers present. Starting with a properly proportioned concrete mix to accommodate fibers is important as well as ensuring that a mix is not "over-watered" 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 FRC may look like the concrete is setting up more quickly due to the cohesive nature of the material.

Due to the self-fibrillating nature and length of TUF-STRAND SF, Euclid's 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. When a broom finish is required, ensure that the equipment used to apply the broom finish is maintained in a clean state and that the angle of the broom is low with all passes being made in the same direction. Broom finishes will usually pull fibers of any type to the surface of concrete but experience has shown that "practice makes perfect". If necessary, perform a trial or mock-up prior to concrete placement to assist the contractor in obtaining a desired surface appearance.

*For additional questions, comments or further explanations, please feel free to contact The Euclid Chemical Company at your convenience.*