



TECHNICAL BULLETIN 113

Procedure for Mixing Five Star® Grouts In Ready Mix Trucks

Certain Five Star® Grouts may be mixed via 3,000 lb. bulk bags in ready mix trucks. **These include Five Star® Grout, Five Star® Cementitious Underwater Grout, Five Star® Special Grout 120, Five Star® Special Grout 150, and Five Star® Fluid Grout 100.** Contact Five Star Products' Technical Support @ 1-800-243-2206 to verify the grout in question may be mixed in a ready mix truck, and for proper aggregate extension guidelines.

To mix Five Star® Grouts in 3,000 lb. bulk bags at a pre-determined coarse aggregate extension follow these guidelines:

- A. Verify working time of grout and water requirements under jobsite conditions before placement in ready mix trucks, particularly under hot weather conditions. Additional set retarders such as Five Star® Summerset may be required. Determine the amount of grout to be mixed per truck. Do not mix more than (3) x 3,000 lb. bulk bags per truck. **IMPORTANT** – Before commencing any bulk bag project, consult with Five Star Products and your local technical representative.
- B. Mixing drum and mixing blades must be in good operating condition, pre-dampened, and all excess water / washout removed. Trucks should be designated to arrive at job site with 80% of total mix water and 100% of pre-determined coarse aggregate (clean, damp 3/8" pea gravel meeting ASTM C33 or similar type). Ready mix plant must provide batch certification on water content and aggregate for each truck on site. It is advisable to pre-test aggregate before use with any Five Star® Grouts.
- C. Alternatively, aggregate may be added on site. Trucks should arrive at job site with 80% of total mix water. Utilizing a scale and a loader, the aggregate can be properly weighed and added (clean, damp 3/8" pea gravel meeting ASTM C33 or similar type). It is advisable to pre-test aggregate before use with Five Star® Grouts.
- D. The person who will be opening the bulk bag should wear appropriate face and respiratory protection. Fully open vent on top of bulk bag. Lift and position the sack over the truck hopper. This may be done with a forklift or crane. **CAUTION** – when using a crane to lift bulk bag it is advisable to use a crane with more than a single hook as this can cause bulk bag to spin during lifting and positioning. Once in position, using a drywall knife, cut the bottom of the bulk bag in an 18" diameter "U" shaped pattern.
- E. Add the grout with drum turning at slow speed. After loading the last bulk bag, use approximately 5 gallons of held back water to wash down the hopper and drum. Mix thoroughly for 5 minutes after the last bulk bag is loaded.
- F. Reverse the drum to check consistency. Add only as much of the remaining water as needed. Increase the drum speed to high and mix for 5 additional minutes to uniform consistency. Do not exceed the maximum allowable water content. Extra 50 lb. bags of applicable grout should be available to stiffen consistency if necessary.
- G. Position the truck as close as possible to the pour and promptly discharge the grout. It is recommended that the grout pass through a screen to remove any clumps prior to entering the pump hopper.

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