

# Mixing Bulk Bags of MasterFlow<sup>®</sup> Cementitious Grouts

## RECOMMENDATIONS FOR BULK BAG MIXING IMPORTANT: READ THIS FIRST

These instructions may be followed, modified, or rejected. However, when the planned procedure differs from those discussed herein, the prospective user of this product is urged to contact the local BASF Building Systems, representative. If on-site service is requested, the requestor must provide at least ten working days advance notice to the local representative.

For large pours, it is advisable to use 2-3 transit mix trucks, as mixing several bulk bags at a time can require up to 30 minutes per mix.

**CAUTION** - Bulk bags hold up to 3,300 lbs (1,500 kg) each. Be certain to use equipment with sufficient reach and balance to raise the bag over the hopper of a transit-mix truck.

## RECOMMENDATIONS FOR USE

1. Wash out the Transit-mix truck with clean, potable water and up to one yard of washed  $\frac{3}{4}$  +” aggregate. This washing operation procedure will provide improved drum efficiency when charged with MasterFlow grout.
2. Back all wash water and aggregate out of the clean drum.
3. Charge the drum at the job-site or concrete plant using a precise measuring vessel or water meter with approximately 80% of the recommended water. Starting water quantities as referenced are only suggested, as job conditions will affect water demand. Determine the final water quantity using an ASTM C939 Flow Cone to achieve the desired flow rate. Cold mix water or materials will reduce the water demand.

If aggregate extension is planned, contact BASF Technical Service department at 1-800-243-6739. Aggregate extension of MasterFlow grouts should be restricted to applications described in the Technical Service bulletin for grout extension. If extension is planned, 25% by weight has shown the best results, however up to 50% by weight has been successful. Limit extension to the smallest percentage practical. 25% extension equals approximately 825 lbs (375 kg) of suitable 3/8 inch (9.5 mm) aggregate. Best practice is to charge the transit mix truck with the aggregate and 80% of the anticipated water (for the complete batch), followed by addition of the selected grout.

4. If increased working time is desired due to hot weather or rapid drying conditions, shaved or crushed ice can be substituted for water. Use care not to cause the as-mixed temperature to fall below 45°F (7°C) or segregation could result. Cold water will reduce the quantity of water needed for workability. Limit any “ice for water” substitution to 35% for the first batch, or until temperature and water/ice quantity control is established. Approximately 8.33 lbs (3.78 kg) of ice equals 1 U.S. gallon (3.78 liters) of water. (Starting water quantities as referenced are only suggested, as job conditions will affect water demand. Determine the final water quantity using an ASTM C939 Flow Cone to achieve the desired flow rate).
5. Secure each of the four lifting straps:
  - a.) To rigging rated for the 3300 lb (1,500 kg) load, and attach to the crane hook.
  - b.) To lift truck forks, using caution to prevent cutting the straps. Sliding pipes over the forks may prevent damage to the lifting straps. NEVER stand beneath raised bags.

6. Open the top of the bags by untying the closure straps located in the top center of the bag. This will prevent formation of a vacuum inside the bag during discharge.
7. Equip a qualified worker with adequate safety harness, safety glasses, respirator or dust mask, high-power flashlight and cutting device such as a razor knife or cutting blade on an extension wand. The worker will need to climb the truck platform, stand at drum loading hopper opening and open the release on the discharge chute to open the bag. The drum should be turning at ~5 rpm (agitate) while charging the drum with grout. The material will flow slowly through the discharge chute; it is advisable to cut the bottom of the bulk bag around the chute and to each of two corners to better facilitate emptying the bag (see photo).



As the wind direction can affect this operation, park the transit truck so the worker is not facing the prevailing wind. Take care that no vehicles or structures are downwind. Success has been achieved mixing between 2 and 4 bulk bags per batch. When mixing 3 or 4 bags at a time, the remainder of the mix water should be added between bags 2 and 3.

8. After the contents of last bulk bag per batch are loaded into the truck, the grout should be mixed for 5 minutes or 70 revolutions at mixing speed.
9. Request the driver to reverse the drum. Using a high-power flashlight, observe the consistency and efficiency of the mix. If acceptable, move the truck as close as possible to the job discharge point and place the mixed product. If more water is added, mix for an additional 3 minutes, or 40 revolutions.
10. Avoid delays in discharging the mixed product.

#### HEALTH , SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting [www.master-builders-solutions.basf.us](http://www.master-builders-solutions.basf.us), e-mailing your request to [basfbcst@basf.com](mailto:basfbcst@basf.com) or calling 1(800) 433-9517. Use only as directed. For medical emergencies only, call ChemTrec® 1(800)424-9300.

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