



TECHNICAL BULLETIN

Mixing Bulk Bags of SikaEmaco S 466CI

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 Sika Construction Systems representative. If on-site service is requested, the requestor must provide at least ten working days advance notice to the local representative. A fee for on-site technical field service may apply.

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.

Acquire and read all current product information.

RECOMMENDATIONS FOR USE:

1. Wash out the transit-mix truck with clean, potable water and up to one yard of washed 3/4 or larger aggregate. This washing operation procedure will provide improved drum efficiency when charged with SikaEmaco S 466CI
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% (160–240 lbs [20–29 gallons]) of the recommended water. Total water demand should be between 200–300 lbs of water (24–36 gallons) per bulk bag of material. Chilled mix water or materials will reduce the water demand. A 4”–6” slump is the desired consistency but can be influenced by temperatures of the ambient atmosphere, material, and water, as well as the addition of aggregate. (see below)
 - a.) SikaEmaco S 466CI is capable of being used in the majority of installations without aggregate extension, but can also be extended if specified or determined necessary. If aggregate extension is planned, contact the Sika Building Systems Technical Service department. Aggregate extension of SikaEmaco S 466CI should be restricted to applications where it is absolutely needed. 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 1-inch (25 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 SikaEmaco S 466CI
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. Approximate water quantity required will range between 200–300 lbs [24–36 gallons] per bulk bag).

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 ~5–15 rpm (agitate) while charging the drum with material. 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. When extending with larger-sized aggregate, the water content on the aggregate should be noted and accounted for.
 - a.) Please note that it is possible to mix more than 4 bulk bags in a typical transit truck. But consideration must be given to the amount of time required to properly mix, dispense, and clean out a truck with batches larger than 4 bulk bags. Mixing larger batches than 4 bulk bags will require more than one transit truck to maintain consistent material supply.
8. After the contents of last bulk bag per batch are loaded into the truck, the material should be mixed for 5 minutes at mixing speed (12-18 RPM).

9. Once complete, 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.
 - a.) Note that when discharging “neat” material, it is common to see some “clumps” leftover from the mixing process. These clumps can be as large as a softball and can be removed from the chute before being placed into a pump. With the addition of aggregate these clumps tend to decrease in frequency and size.
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 usa.sika.com, e-mailing your request to customer service or calling 1(800) 433-9517. Use only as directed. For medical emergencies only, call ChemTrec® 1(800)424-9300.

LIMITED WARRANTY NOTICE

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