



## On-Site Mix Designs

For one yard of shotcrete at an eight sack mix without Kel-Crete	For one yard of shotcrete at a seven sack mix with Kel-Crete
Cement.....752 lbs.	Cement.....658 lbs.
Water (35 gal).....280 lbs.	Water (35 gal).....280 lbs.
Concrete Sand.....2,214 lbs.	Concrete Sand.....2,275 lbs.
3/8" minus gravel.....554 lbs.	3/8" minus pea rock.....576 lbs.
1 Bag Plastic Fibers.....1 lbs.	Kel-Crete(as needed).....3 oz.
Total Weight.....3,801 lbs.	1 Bag Plastic Fibers.....1 lb.
	Total Weight.....3,801 lbs.
Add air entrainment of 5% to 8%.	
Add water reducer per instructions.	
No air needed. No water reducer needed.	

Two sack mix per batch for approximately one fourth (1/4th) yard of shotcrete at an eight sack mix without Kel-Crete	Two sack mix per batch for approximately 3/10th yard of shotcrete at a 7 sack mix with Kel-Crete
Cement.....188 lbs. (2 sacks)	Cement.....188 lbs. (2 sacks)
Water.....70 lbs. (8.75 gal.)	Water.....80 lbs. (10 gal)
Concrete Sand.....552 lbs. (8 @5 gal.)	Concrete Sand .....690 lbs. (10 @5 gal.)
3/8" minus gravel.....140lbs. (2 @5 gal.)	3/8" minus gravel.....140 lbs. (2 @ 5 gal.)
1/3 Bag Plastic Fiber....1/3 lb.	Kel-Crete (as needed)..2 ozs. to 3 ozs.
Total Weight.....950 1/3 lbs.	1/3 Bag of Fiber.....1/3 lb.
	Total Weight.....1,101 1/3 lbs.

**NOTES:**

1. The 3/8" pea gravel may be left out. The mix will usually be harder to pump. The concrete will not be as strong, but generally acceptable especially for the last coat or two. The surface will be smoother.
2. Water may need to be adjusted to achieve the proper slump 2" to 6".
3. The Kel-Crete should be added early in the mix with the water or direct.
4. Leave out the fibers on the finish coats.
5. Berlyx liquid can be used instead of Kel-Crete @ 32 fluid ounces per yard or 10 ounces per 2 sack batch. Berlyx power can also be used --- follow directions.
6. Fly ash can also be used. Substitute 100 lbs of cement for 125 lbs of fly ash per cubic yard. We recommend the use of fly ash when available.
7. EZSpred (comes in 7lb bags) also works as a very good admixture. It gives the shotcrete a very smooth texture as well as other admixture properties.