

# HOW TO

## MIX CONCRETE AND MORTAR



When mixing concrete or mortar, accurate proportioning or gauging of materials and thorough mixing are essential. Using a shovel to measure out the different constituents is not accurate enough and can lead to problems and variability in performance, the use of batch boxes or other containers is strongly recommended. Use the same size container for measuring all materials. A heavy duty 15 litre bucket is a convenient size, always use a separate bucket and shovel for cement.

### MACHINE MIXING

1. Fill the bucket with cement then tap the side with the trowel to shake the cement down.
2. Add more cement to bring it level with the top.
3. Repeat this with the other materials, again filling to level with the top of the bucket.
4. Always use clean tap water as dirty or contaminated water will reduce the quality of the mix.
5. For larger jobs, consider using an electric or diesel powered mixer. The mixer should be on firm level ground and should not be used alone, get someone to help you with the loading and unloading.
6. Load half the aggregate and half the water into the mixer and then add most of the cement and sand.
7. Add the rest of the materials alternatively, avoiding build up of dry material on the blades of the drum.
8. Add more water as necessary and mix for 3 – 5 minutes until the mix is uniform in consistency and colour.



## HAND MIXING

Hand mixing can be hard work, but is satisfactory if the correct procedures are followed. Our ready to use concretes are suitable for hand mixing, particularly as you only need to add clean water.

1. Always work on a hard and reasonably smooth surface such as a sheet of plywood or concrete .
2. Measure out the aggregate into a compact pile and form a crater in the top and add the cement.
3. Turn over the dry mix at least three times, until it's well mixed.
4. Form a crater in the pile and add some of the water. Always try to avoid water spilling from the crater.
5. Bring the dry material to the water and keep mixing adding more water as necessary until the mix is uniformed in consistency and colour.
6. Use the minimum amount of water required to achieve the desired consistency.
7. During the mixing and placing of concrete, air is entrapped and if not removed will reduce the performance of the concrete.
8. To produce a concrete that is strong, dense and impermeable the mix should be thoroughly compacted either by rodding , spading or hand tamping to remove the entrapped air.



## WHAT YOU NEED

### MATERIALS

- Mastercrete
- Clean, well graded sand
- Aggregates

### TOOLS

- Gauging bucket
- Shovel
- Mixing area
- Cement mixer (if machine mixing)
- Wheel barrow
- Shovel

### TECHNICAL HELPDESK

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### DIYCEMENT.COM

Scan the QR code to go to our website, packed full of information and video guides for DIYers.



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