What You Will Need

Molds

Release Sprayer

Release Agent

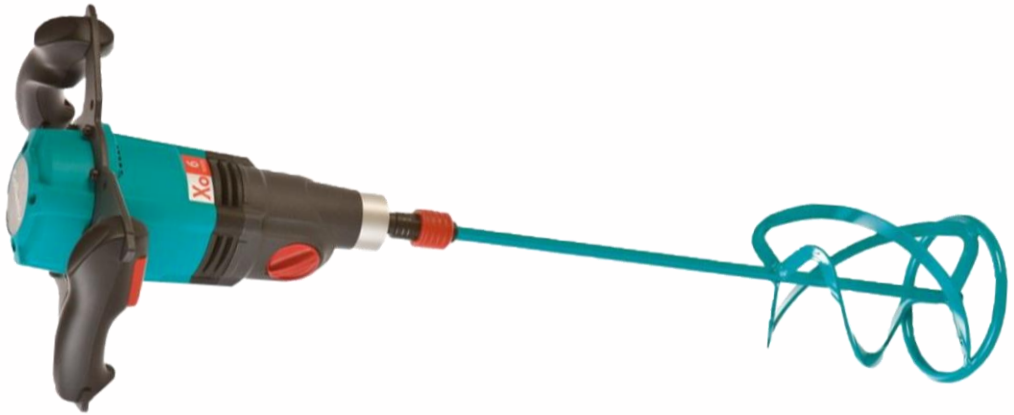
Cement

Oxide Pigments

Sand

Heavy Duty Bucket

Super-plasticizer



Hand Mixer

Vibration Table

Metallic Pigment

Disposable Sprayer

Sealer

Mixing

Buying premixed bags of concrete from your hardware store sounds like the easiest rout to start casting concrete molds, but it comes with many drawbacks. The most important of which is not knowing the cement ratio of your concrete. Almost all concrete additives are dosed by cement weight, not by the concrete weight as a whole. Additives like pigments, superplasticizers, fast set additives, etc.. Instead, we recommend using a ratio of 2 parts sand to 1 part cement for the easiest bubble free mixture. Every mold on our website has detailed casting instructions which list all the material weights required for each separate mold.

MS 871 Stone-casting Instructions:

*Always apply **release agent** to your mold prior to casting concrete.*
MS 871 mold casting weight is about 8.31 lbs. (3.77 kg.)
We use this 1:2 cement to filler ratio mix : (you can also mix 1-part Portland cement to 3 parts sand [filler], but plasticizer and water has to be re-calculated by cement weight)
2.77 lbs (1.26 kg) Portland cement (white for light stone colors, gray for dark stone colors)
5.54 lbs (2.52 kg) Sand (20-30 mesh recommended. Silica sand or "all-purpose" sand works great)
11.08 oz (0.3 L) Water (We recommend water to be 20%-30% of cement weight.) (If your mix is too liquid, use less water.)
*0.44 oz (12.58 g) **Super-plasticizer** (Superplasticizer's dosage rate is 0.5% -1% of cement weight. We are using 1%)*
*For best result always add **dry pigments** to your mix prior to adding the water. Mix concrete with pigment and additives for a few minutes, then add water (mix at least 3-5 minutes). You can also add Super plasticizer to the water 10-15 minutes prior to casting, then mix with dry ingredients.*
Please note: Concrete minimum mixing time is 3 minutes (it takes a few minutes until Super Plasticizer absorbs into the cement and start reaction)
To color different molds sections, brush oxide pigment over the selected sections, then cast the concrete.
Cover the mold with plastic while it is curing. Remove the stone from the mold in 12-24 hours

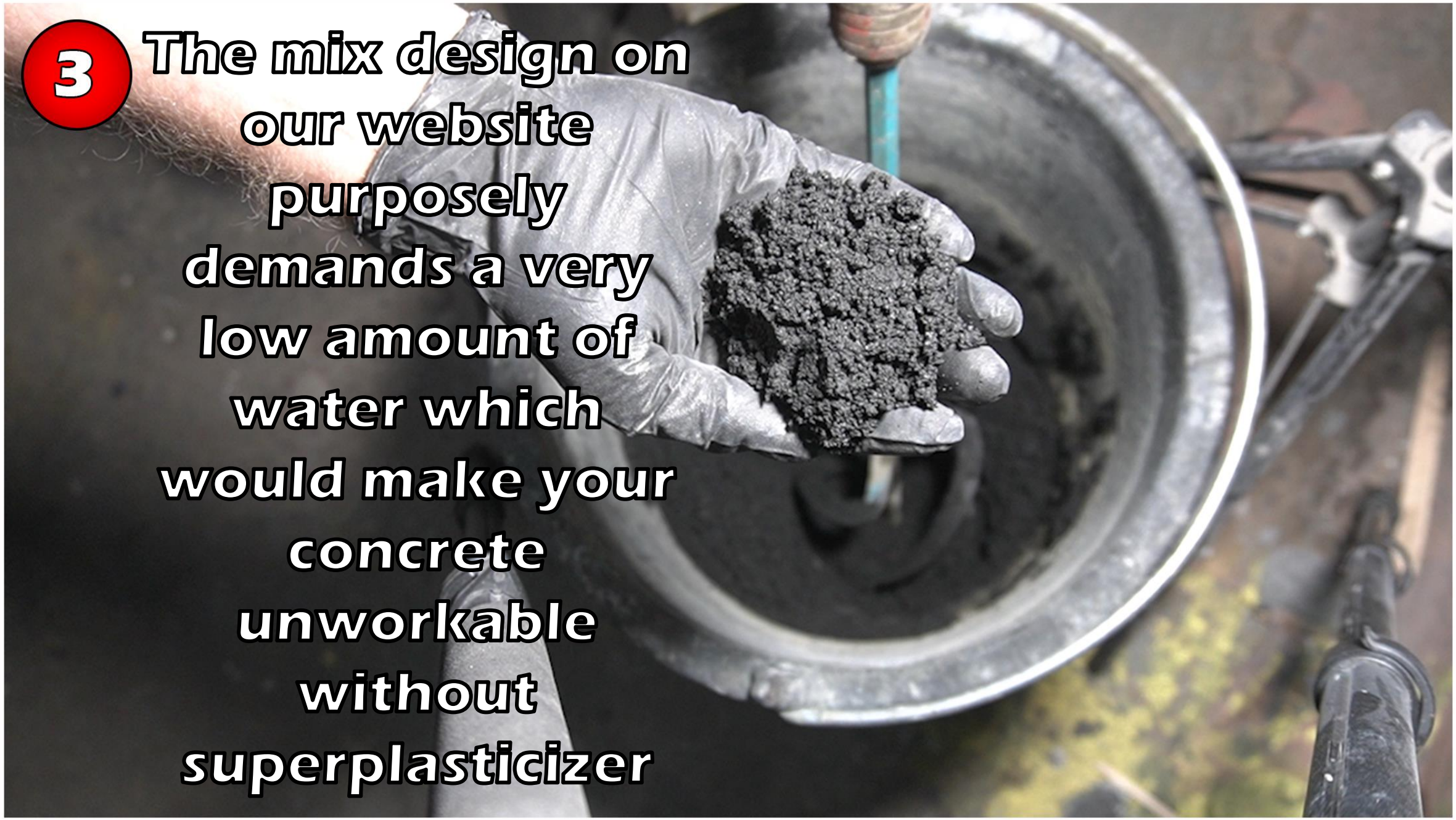
Add cement and sand into your heavy duty mixing bucket

1

Adding the sand first helps prevent the cement from sticking to the bottom of the bucket.

Then we can add our pigment and water and mix thoroughly

We offer both high end and budget hand mixers on our site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The mix design on our website purposely demands a very low amount of water which would make your concrete unworkable without superplasticizer

Superplasticizer

Excess water makes your concrete much weaker than it should be. Too little water however makes your concrete dry, sandy and unworkable. Superplasticizer is a water reducer which allows you to add as little as 20%-35% water to cement weight. The superplasticizer is dosed at 0.5% - 1% of cement weight

Add and mix your superplasticizer, and allow it to take action after a few minutes of mixing

4

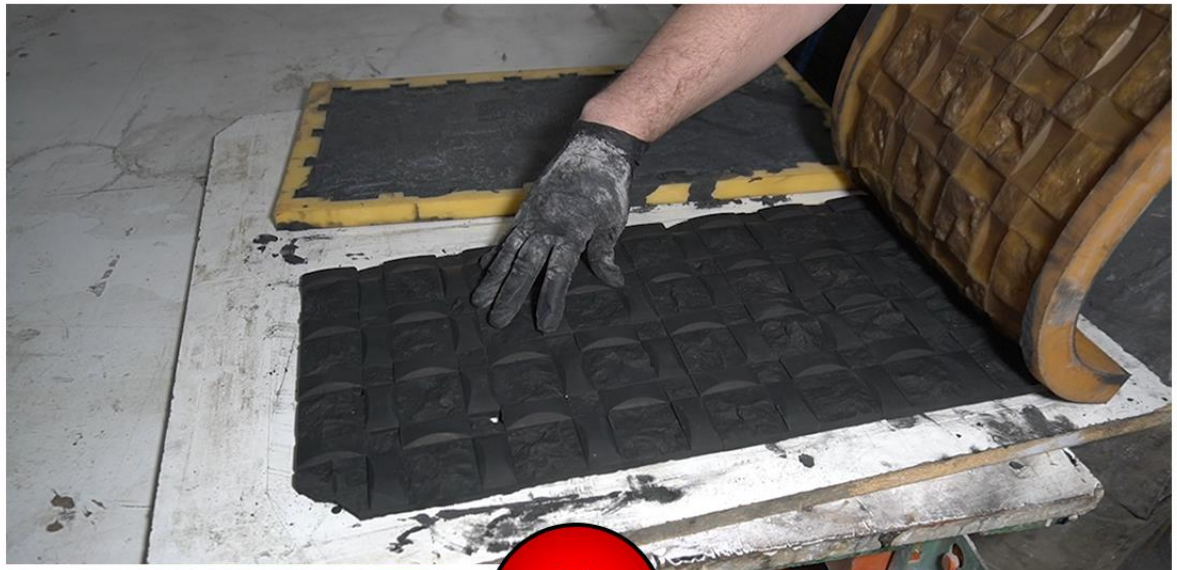
This mixing order was just to demonstrate the effectiveness of the superplasticizer. The best mixing order is to mix the water, pigment, and superplasticizer in the bucket first. Then to add the cement and sand to complete your mix.

After spraying release on your mold, you can pour the concrete into your molds

5

Then you can use a vibration table to remove the bubbles from the surface of your stone. A less effective method is to just shake the mold back and forth

The next day you can demold the stones



The white stone was created by using white sand and white cement

6

Metallic Staining

This brand new method of staining mimics the already existing water based staining technique, but uses metallic pigments instead of oxide pigments. Metallic pigments are originally used in epoxy to make "metallic epoxy floors" but we discovered a great new use for it

First you add water into a spray bottle

7

Then you add the <u>metallic pigments</u> into the water and shake them thoroughly

8

Then you start spraying your mold to stain it

The color I am using is called “Toffee”

9

The same method is used for the silver panel

The color I am using is “slate”

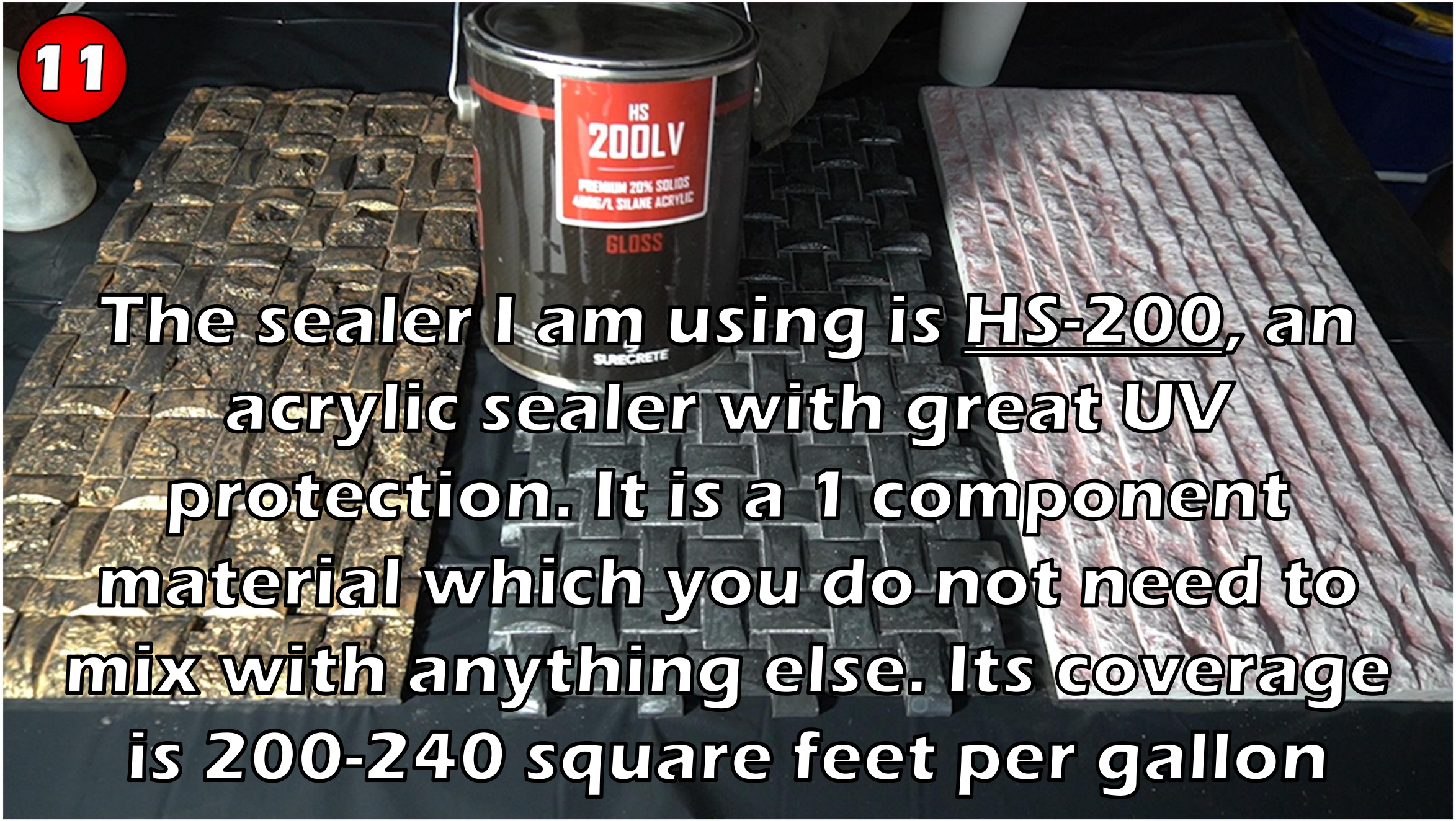
For the white stone, I will use a softer color

10

The color I am using is “rose gold”

Sealer

Sealing is necessary for this staining method, or else any rain or disturbance to the metallic pigment will rub it off. It is necessary to seal the stone when it is completely dry. If you seal while the concrete is still retaining moisture, it will discolor the concrete and possibly bubble underneath the sealer.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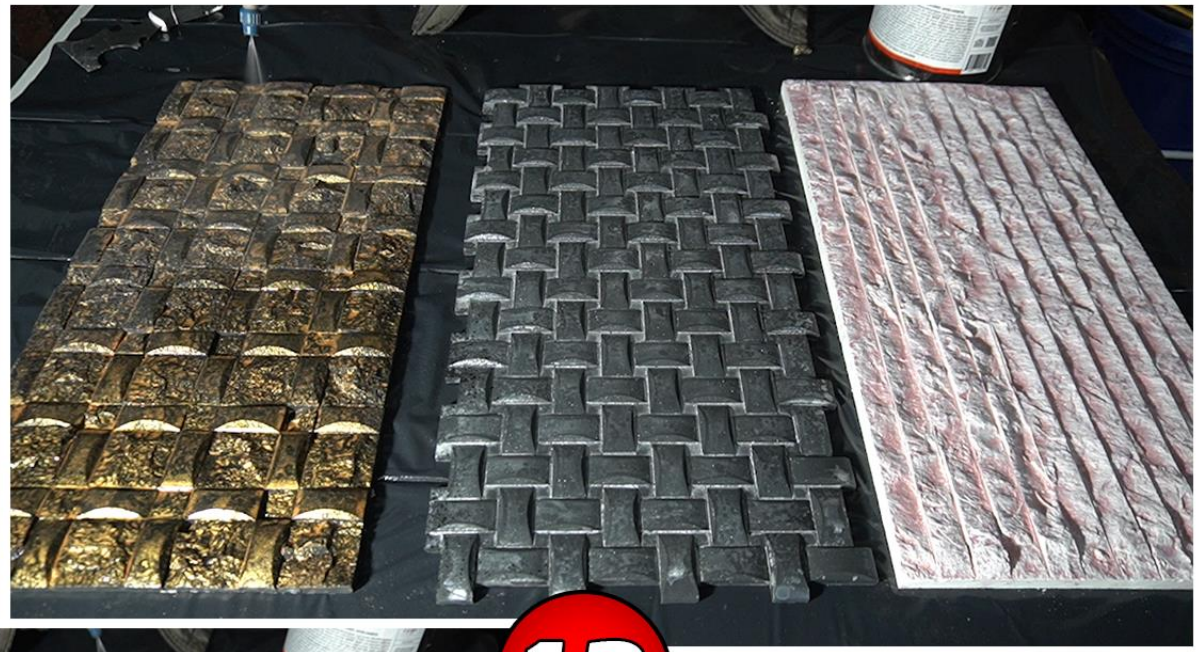
HS
200LV
PREMIUM 20% SOLIDS
SILANE ACRYLIC
GLOSS
SURECRETE
The sealer I am using is HS-200, an acrylic sealer with great UV protection. It is a 1 component material which you do not need to mix with anything else. Its coverage is 200-240 square feet per gallon

Use a disposable sprayer to spray the sealer onto your stones



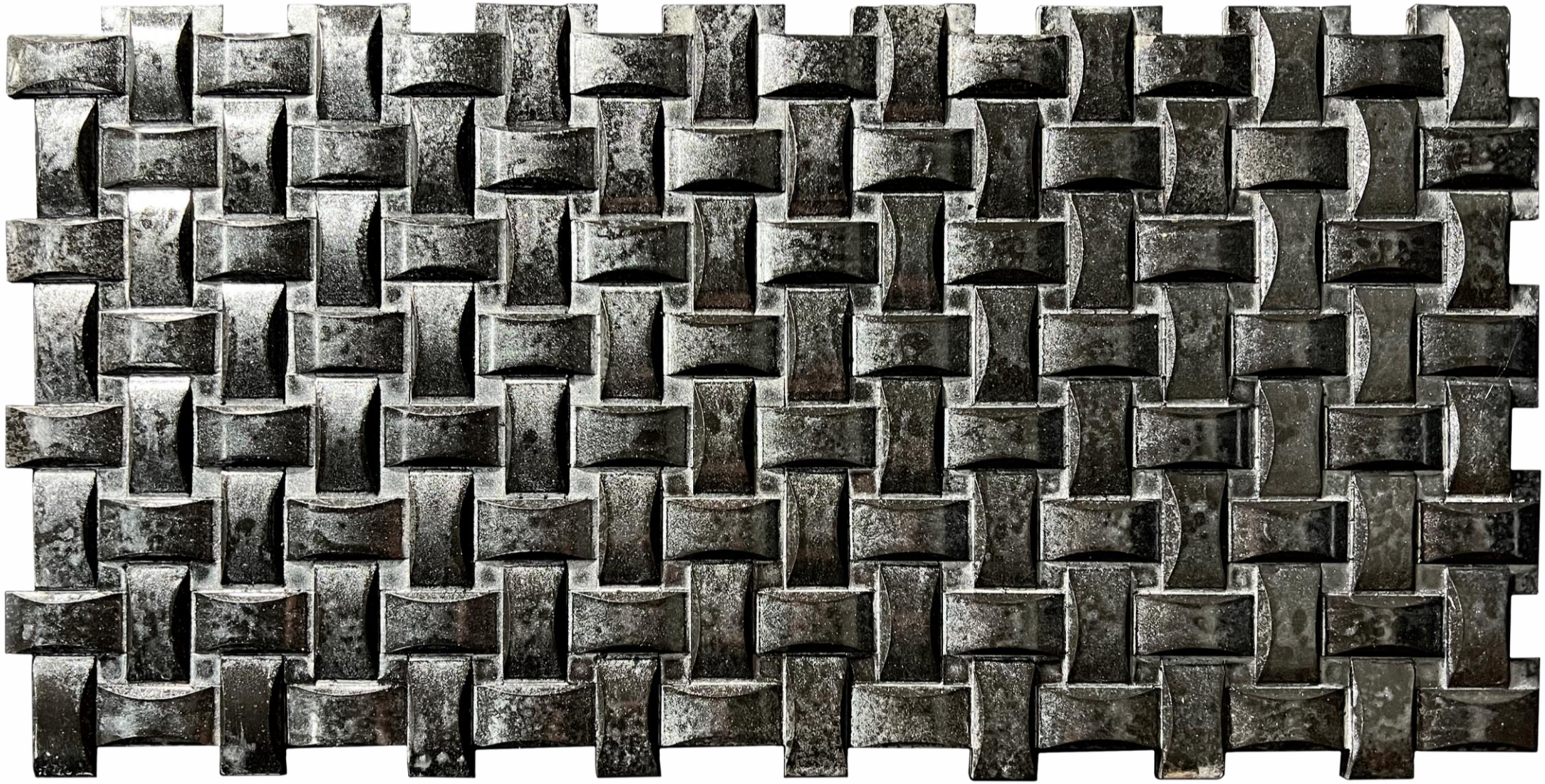
The sealer also helps the colors become much more vivid

12


13
Wait for the sealer to dry and
install on your wall!!

Gold

Silver



Rose Gold

Watch the full video here