
FAKE?

Wood Mold

Super-Plasticizer

CSA

Heavy Duty Bucket

Hand Mixer

Oxide Pigment

Non Aerosol Sprayer

G1 Release

Eco Stain

HS200 Sealer

Pump Sprayer

Foam Roller

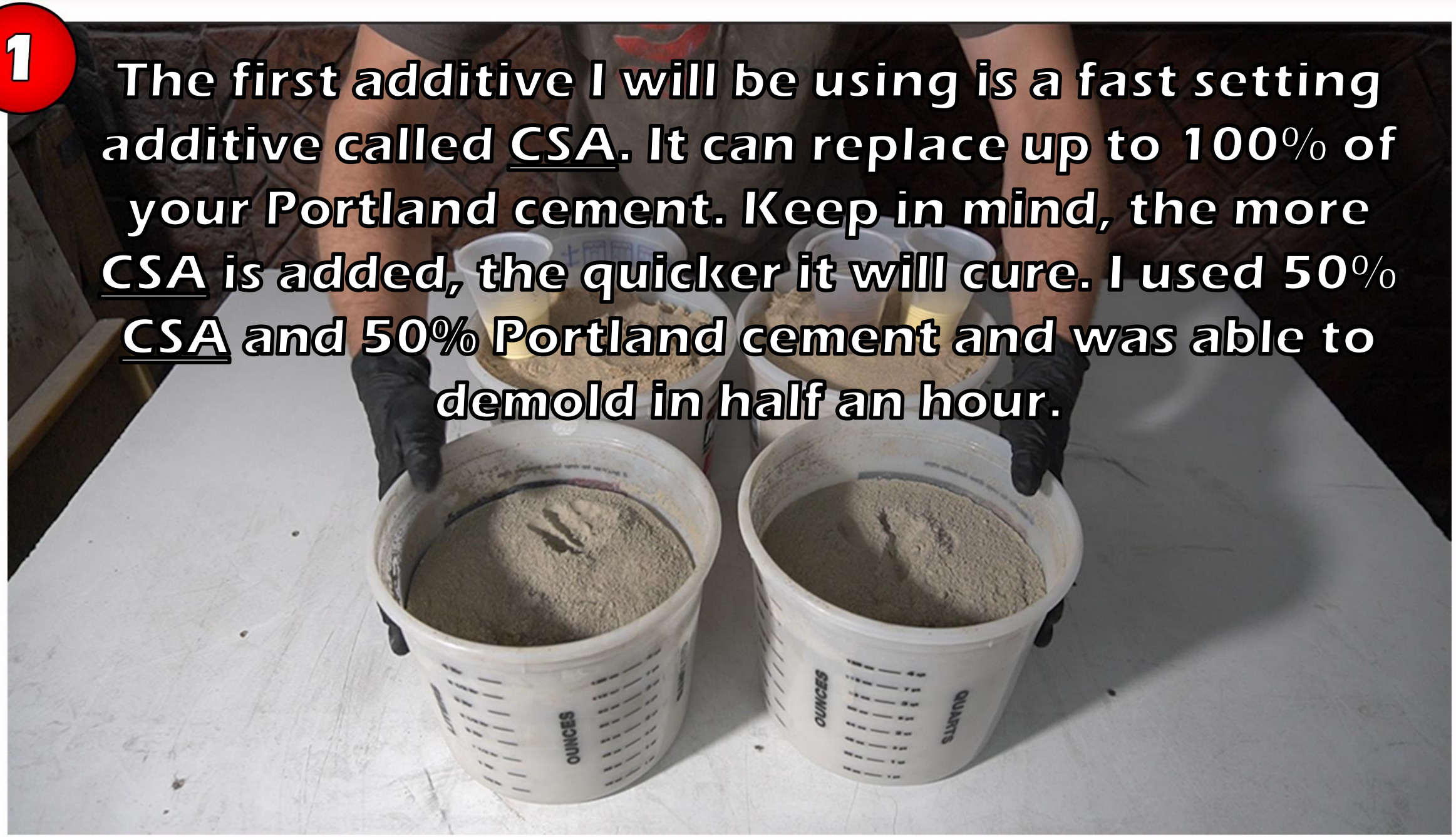
Materials & Additives

Most concrete additives are dosed based on the cement weight, not the concrete weight as a whole. This makes getting the right dosages tricky when using premixed bags of concrete, which is why we like to make our own mix design. The optimal mix for mold casting usually consist of 2-3 parts sand, to 1 part cement. Gravel is optional but will result in more bugholes in the finished product. All GlobMarble molds have a detailed dosage instructions in the descripting of their page.

How to Make Concrete Stone Instruction

WS 5002 Stone-casting Instructions:

Always apply **release agent** to your mold prior to casting concrete.
WS 5002 mold casting weight is about 39.73 lbs. (18.04 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)
13.24 lbs (6.01 kg) Portland cement (white for light stone colors, gray for dark stone colors)
26.48 lbs (12.03 kg) Sand (20-30 mesh recommended. Silica sand or "all-purpose" sand works great)
52.97 oz (1.44 L) Water (We recommend water to be 20%-30% of cement weight.) (If your mix is too liquid, use less water.)
2.12 oz (60.13 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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The first additive I will be using is a fast setting additive called CSA. It can replace up to 100% of your Portland cement. Keep in mind, the more CSA is added, the quicker it will cure. I used 50% CSA and 50% Portland cement and was able to demold in half an hour.
OUNCES
QUARTS

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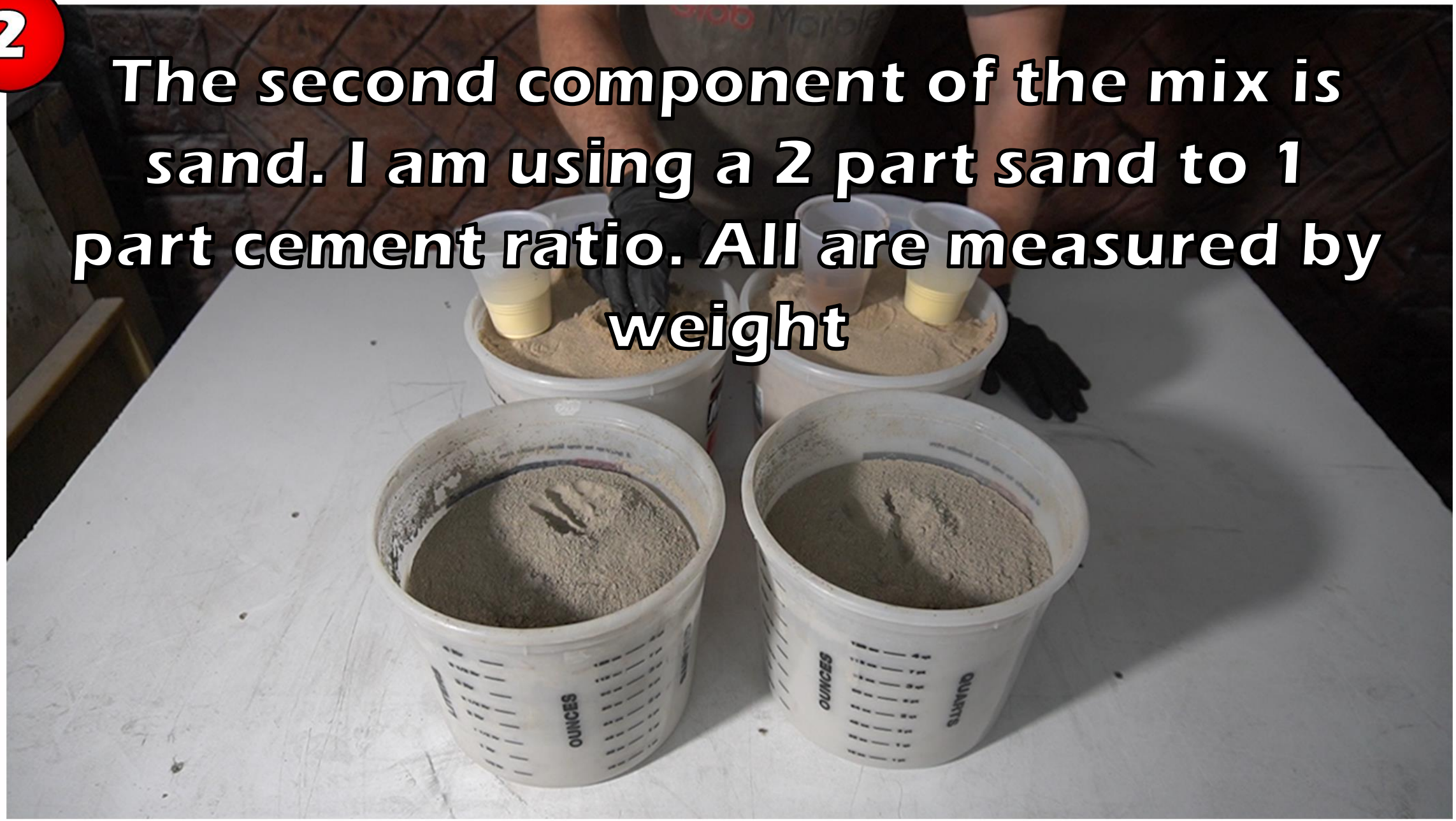
The second component of the mix is sand. I am using a 2 part sand to 1 part cement ratio. All are measured by weight
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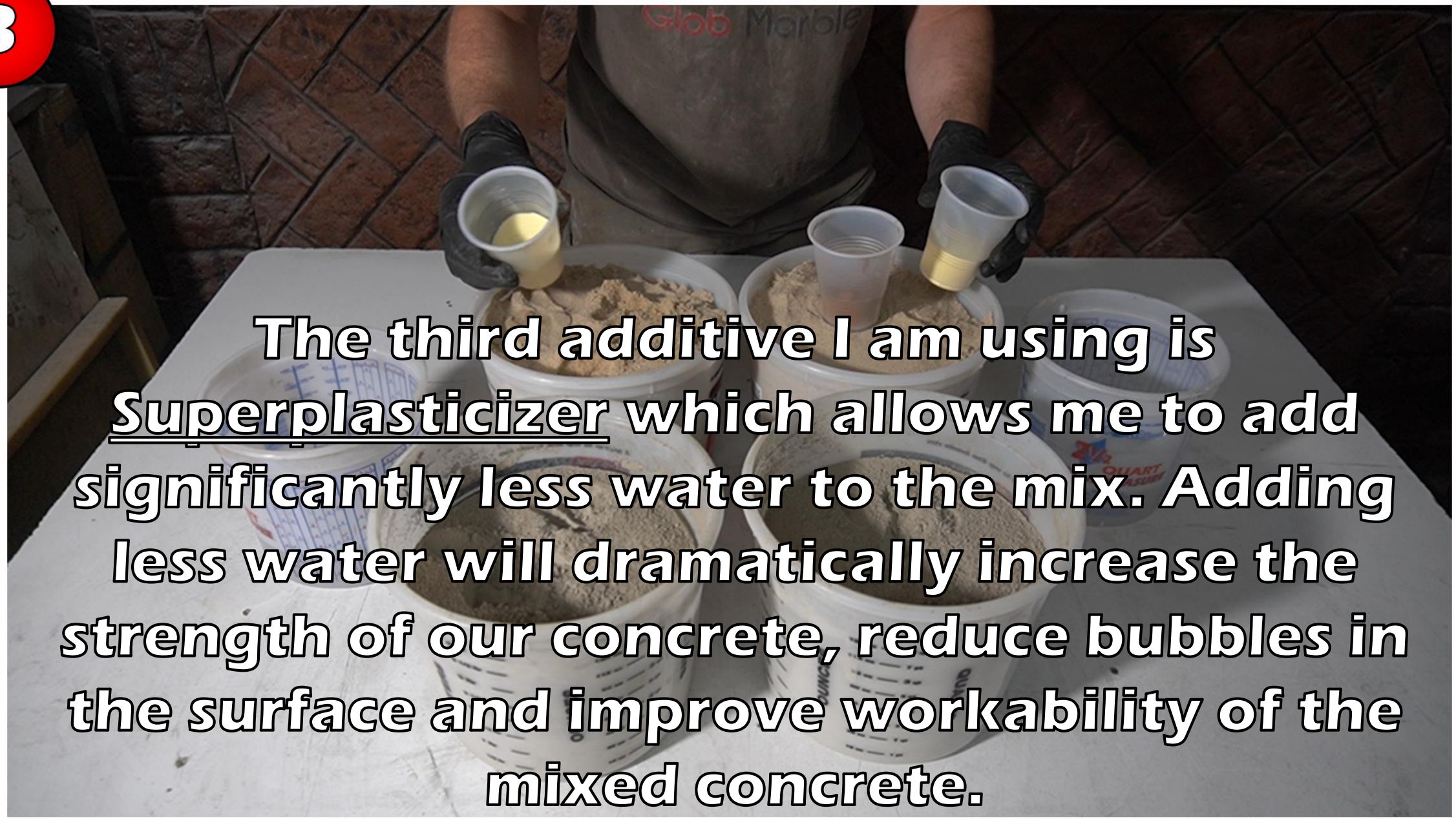
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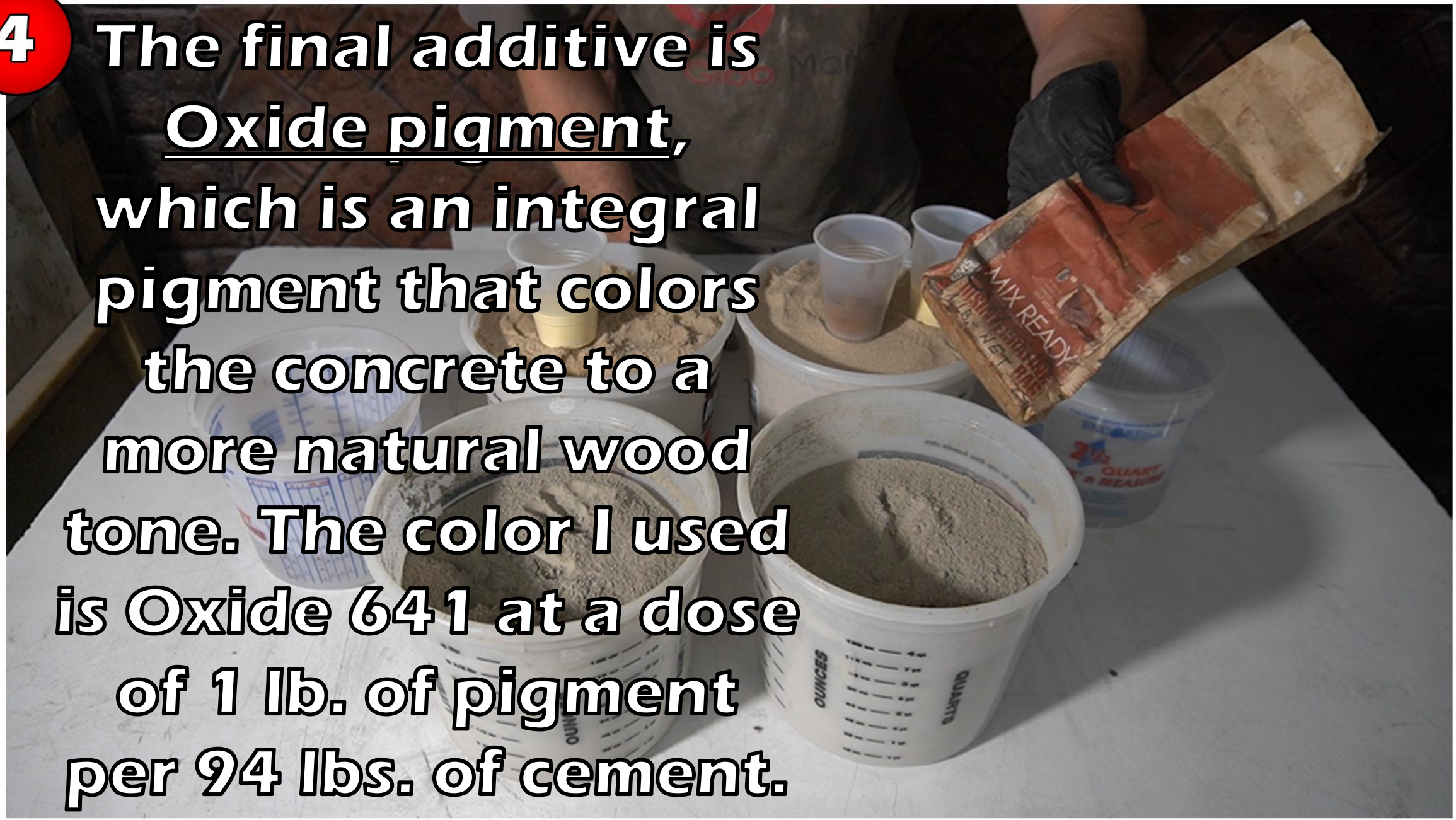
The third additive I am using is Superplasticizer which allows me to add significantly less water to the mix. Adding less water will dramatically increase the strength of our concrete, reduce bubbles in the surface and improve workability of the mixed concrete.



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The final additive is Oxide pigment, which is an integral pigment that colors the concrete to a more natural wood tone. The color I used is Oxide 641 at a dose of 1 lb. of pigment per 94 lbs. of cement.

Different Coloring Options

Coloring options are practically limitless when working with concrete. The first decision is deciding which <u>oxide pigment</u> to use, or whether to use oxide pigment at all. The benefit to using these pigments is an even color through ought the entire piece of concrete which will ensure damage is much easier concealed as apposed to exclusively topical colors. I will cast one plank with pigment, and one with regular gray concrete.

It is best to <u>mix</u> all additives into the water first

5

This ensures consistent color through ought the concrete and a much quicker <u>mixing</u> time

Add the sand first and the CSA/cement afterwards

6

This prevents CSA from quickly hardening and sticking to the bottom/sides of your bucket

Mix the concrete thoroughly, scrape the sides/bottom of your bucket to prevent unmixed material, and mix again

7

The Superplasticizer takes a few minutes to take effect & bond with the cement molecules


8
Spray release agent onto the mold to prevent the concrete from sticking. A non-aerosol sprayer is the best release sprayer as it sprays a very fine mist

Pour the concrete into your mold quickly as the CSA is taking effect

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Vibrate the concrete on a vibration table to remove bubbles from the surface of your stones

Demold time can vary based on temperature and CSA dosage

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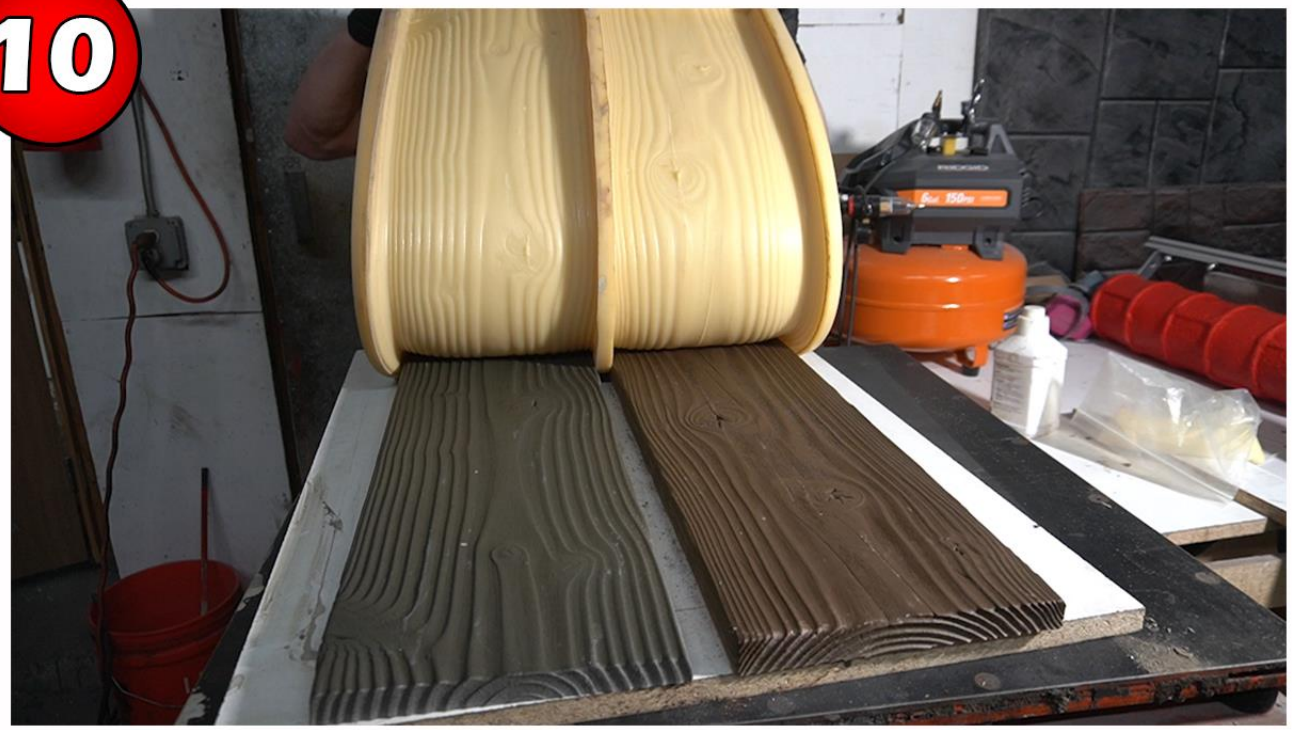
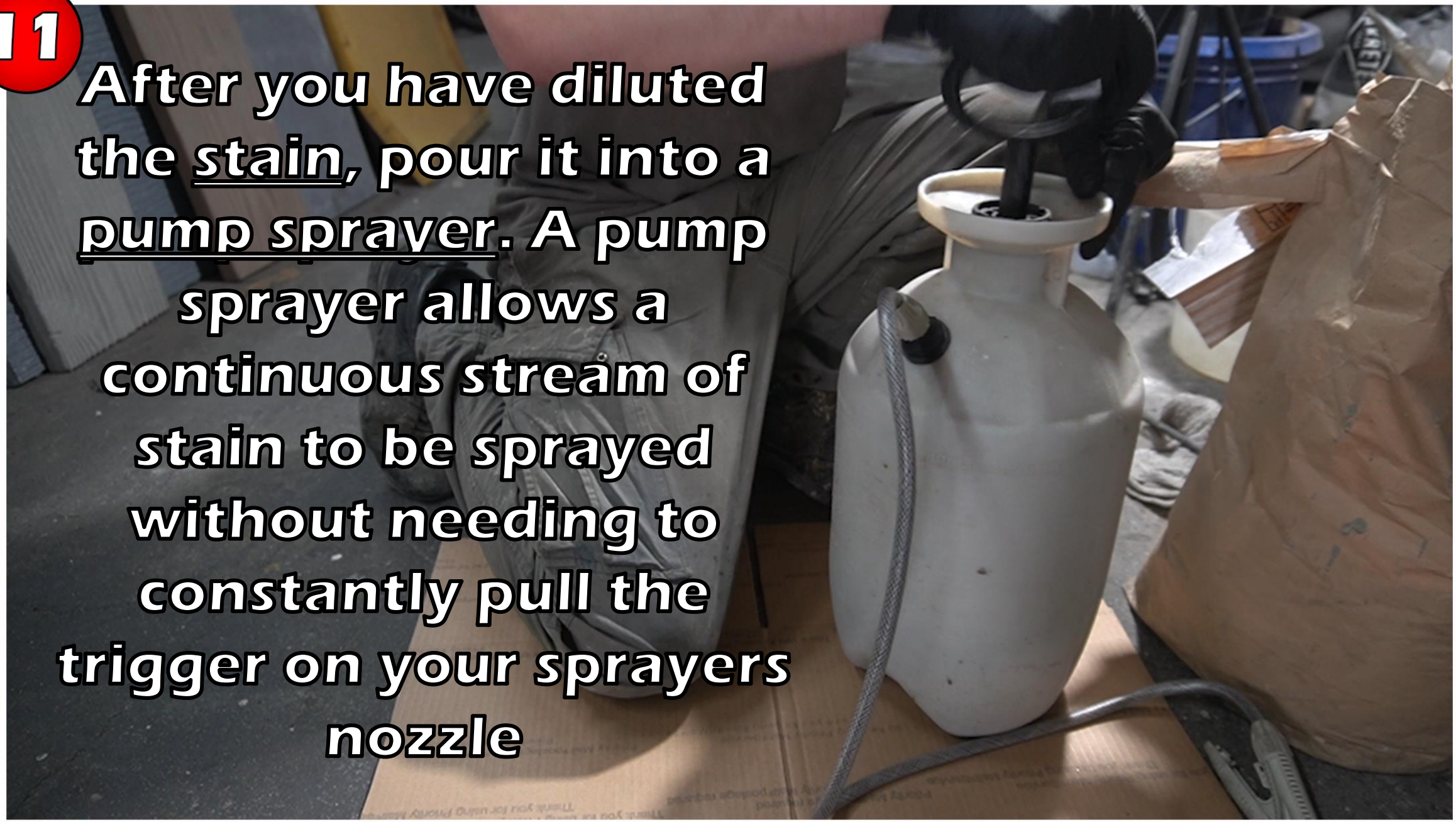


CSA	Set Time
20%	65min.
30%	32 min.
40%	23 min.
50%	18 min.
60%	13 min.
100%	11 min.

Secondary Coloring

Using a <u>stain</u> is an excellent way on making your wood planks look more realistic. The stain will pool in the deeper points of the wood making it darker while keeping the peaks and ridges light, giving a nice accenting effect. <u>EcoStain</u> is a water based stain which can be easily touched up. It is a concentrate and is designed to be diluted at a ratio of 1 part stain to 3 parts water. This ratio can be changed depending on the color intensity desired.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After you have diluted the stain, pour it into a pump sprayer. A pump sprayer allows a continuous stream of stain to be sprayed without needing to constantly pull the trigger on your sprayers nozzle

I sprayed stain on both concrete planks

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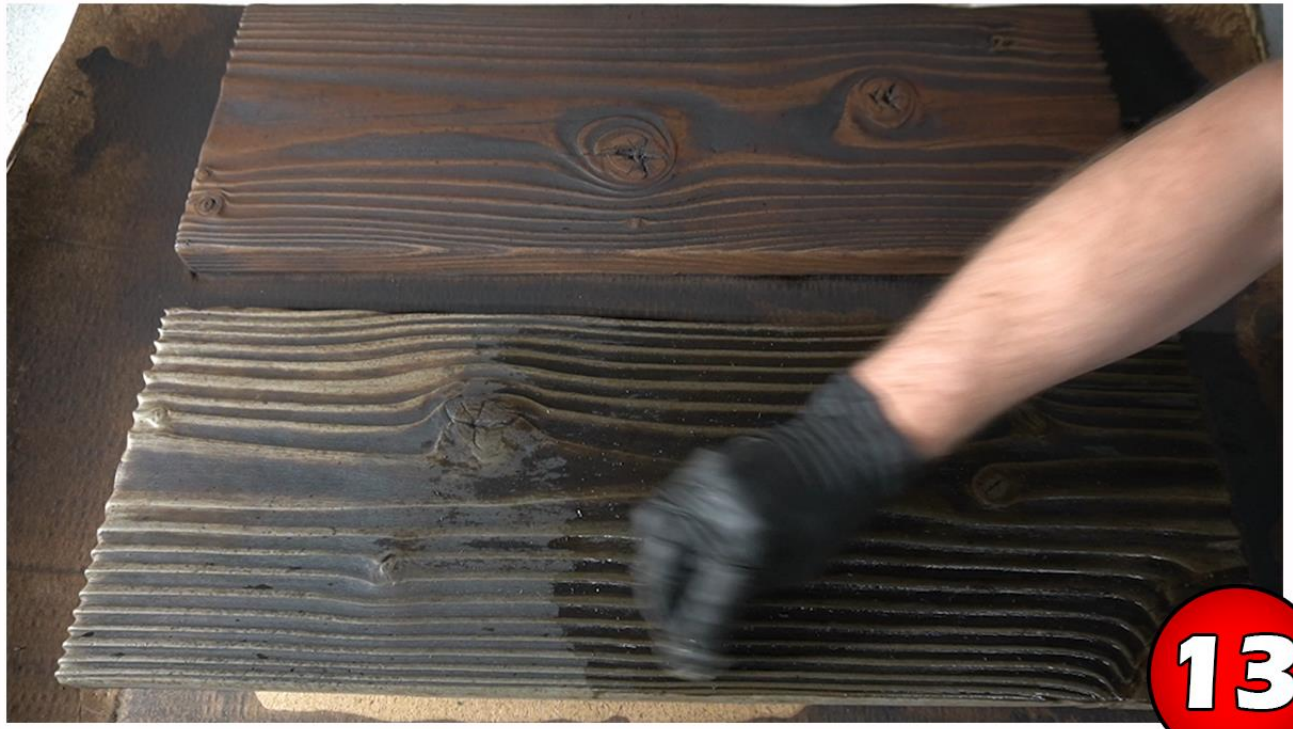
The one without oxide pigment looks more like aged wood, while the pigmented one looks more vibrant



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The EcoStain can be manipulated with water after it dried to get a more realistic effect

I tried to mostly wash the stain off of the wood peaks to give the plank more contrast between colors

Sealing The Concrete

The EcoStain needs to be locked into place so it does not wash off. A good concrete sealer will make the stain permanent, protect the concrete from scratches, and also make the colors pop and look more vibrant. You can either use a high gloss sealer or a matte sealer

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Pour and <u>roll</u> the <u>sealer</u> onto the stones

All done!!

WATCH THE FULL VIDEO HERE