How-to Use Join.It Adhesives

Is Your Dispenser Causing Cure Issues?

There are a couple of “best practices” to keep in mind when using 10 to 1 dual component adhesives for fabricating Solid Surface and Stone.

One of the most common misconceptions regarding 10 to 1 adhesives is that all dispensers provide identical performance. Based on our experience and extensive testing we know that there are marked differences in cure consistency. Specifically, the lower cost, all metal dispensers tend to have a very high mechanical advantage. This can result in off ratio mixing of the two components if the user pulls too hard on the trigger.

To explain it another way, excessive pressure on the cartridge, due to a high mechanical advantage in combination with operator strength, will actually bulge the cartridge slightly. When the cartridge returns to its original size after the trigger is released, the adhesive component (large side), will continue to flow out of the cartridge, while the activator component (small side), will not. This results in an area of the bead that the 10 to 1 ratio is off and the adhesive bead will have “hot” and “cold” spots in the cure.

To test this theory for yourself, simply take a cartridge of adhesive (a light color will give the best result), purge as always, lay out a bead of 6 feet or so on wax paper, using an excessive amount of pressure on the trigger. Every time you re-trigger, deviate from the bead a little as a mark for later. Continue to crank on the trigger and run out maybe a third of the cartridge. Make sure to pull hard on the trigger. This will mimic the higher mechanical advantage of a cheap gun if you’re using a higher quality tool. If you are testing with a metal dispenser, the results will be accentuated.

Now observe carefully the differences in the curing material along the length on the bead. Notice how there will be sections of bead that are significantly slower than others to cure. If you have used a light color, you may also see areas that discolor due to the “hot spots” that cure faster due to the same ratio fluctuation.

In extreme circumstances, the bead may not cure at all in small sections or the discoloration will ruin the appearance of the seam.

The answers: If you want to use an economy model for cost savings- be sure to apply even pressure on the trigger to minimize ratio fluctuation and don’t crank it too hard.
The best option is to purchase a higher quality tool that is designed to limit the adhesive output and provide an even cure.