

Molding Rubber Stamps

1. Determine Bearer Bars. Add matrix floor and thickness of release paper to the desired thickness of stamp. A thickness of .105 will allow for deep etching.
2. Cut Rubber so that the entire image of the stamp is covered. Remove the HDPE carrier, if this is hard to pull, take a razor or knife and cut the film in half the length of the rubber. The smaller piece will pull easier.
3. Place the dusted side of the rubber against the matrix. This is critical as the dust acts as a lubricant to allow air and non-toxic gases to escape during vulcanization. If adding strips of rubber on top of the pre-cut rubber, be sure the dusted side of the strip is against the shiny top of the rubber sheet.
4. Cover with release paper so the rubber does not stick to the top platen.
5. Slowly close platens until bearers are tight. There is no need to preheat at this stage.
6. Cure at 307 F for 8 - 10 minutes. Most rubber is manufactured to cure in ten minutes at 307 F. The curative agents within the rubber compounds do slowly cross link over time and cure times will decrease accordingly.

The affect of press temperature on rubber's cure time is critical. For every 10 degrees less than 307 F, multiply the 10 minute cure time by 1 1/2 to arrive at the proper time. In this case the cure time is 15 minutes at 297 F. Likewise for every 10 degrees above 307 F, divide the 10 minute cure time by 1 1/2. In our example 10 minutes at 307 F becomes 6 2/3 (10 divided by 1 1/2) minutes with a press platen temperature of 317 F.

A simple test to see if the rubber stamp is fully cured is to depress a fingernail into a solid surface, it should "bounce back" and the nail depression be gone. Bedell-Kraus' laboratory equipment is used twice to test the cure times of every pound of rubber produced. Bedell-Kraus also maintains a small sample of every roll of rubber produced so we are able to test cure times if there are any field problems with that roll.