



## How to Sublimate a PolySub Mug

The successful sublimation of any substrate depends upon balancing the variables of pressure, temperature and time. We tested the following mug presses with various inks and papers to come up with general parameters that will help you get started. Your combination of ink, paper and mug press is unique to you, and will require adjustments to obtain optimum results with the PolySub mug.

- 1. Use a low to medium pressure setting** no matter which mug press you are using. The PolySub mug is an injection molded polymer with a uniform tight tolerance surface. As a result, there is no need for high pressure to achieve good contact between the transfer and the mug. High pressure can cause deformation of the mug, ghosting of the outline of the transfer paper and an impression from the heating element.
- 2. Make your transfer paper** size either 3 1/2" x 8 1/2" or 3 1/2" x 9 1/4", regardless of the size of the image, to eliminate the potential for ghosting. This also helps with the proper alignment of the image on the mug. If you desire a full bleed, 4" x 9" is recommended.
- 3. Tape the transfer** to the PolySub mug. If the tape comes loose when you remove the mug from the press, then tape it more securely or consider using a different heat tape. For a **full bleed**, slightly wet the top and bottom edges and push the paper around the edges to ensure the ink transfers during the heating process.
- 4.** Place the aluminum **insert tool** inside the mug. The mug tool is used to prevent deformation. The insert tool should be used with all mug presses and mug wraps as it stabilizes the mug.
- 5.** Wrap a **Teflon sheet** around the mug after inserting the tool. Some mug press heating elements have a pattern on the surface which can transfer to the mug. The design of one mug press is such that the compression of the heating element is elliptical instead of round and deforms the mug regardless of the pressure setting.
- 6.** The PolySub mug has a melting temperature of 430° F. If you are melting the surface of the mug, you are well above the **temperature** required for sublimation to occur and should adjust your settings downward. Remember, the temperature setting of the mug press reflects the design of the controls and the position of thermocouples, and does not necessarily reflect the actual temperature at the surface of the mug.
- 7. Time:** The PolySub mug heats up faster than a ceramic mug as it is one-third the weight of a ceramic mug. In general, the time to sublimate a PolySub mug is less than a ceramic mug.
- 8. Immediately remove the mug** from the press when the process is finished.
- 9. Remove the insert tool** from the mug. Careful, it will be **hot!** It will become lodged in the mug if it cools before removing it. If the tool sticks inside, reheat the mug/tool until the tool can be removed.
- 10. Immediately dip the mug (with the transfer still attached) in cold water** to stop the sublimation process and stabilize the mug.

Mug Press	Temp. Setting	Time Setting
Cactus	390 F	3 min 15 sec
George Knight	380 F	4 min 30 sec
Hix	390 F	5 - 6 min
JP500	400 F	4 min
Nova Chrome	390 F	2 min 15 sec
Phoenix	340 F	1 min 30 sec
Printa	390 F	3 min 15 sec
Stahls	350 F	2 min 15 sec
Mug Wraps (convection oven)	375 F	12 min

**Note:** The above settings are only intended to give you a reasonable point to begin to determine the best settings for your system. The lid for the Travel Mug may appear loose on the blank. The mug shrinks slightly after sublimation for a correct fit of the lid.