

## THE HOT STAMPING PROCESS

Hot stamping is a permanent marking process used to label plastic parts. The hot stamping process utilizes a heated metal or silicon die that brands the part with an image or a flat silicon pad that simply presses an image on the raised surface of a part. Color is added to the brand with the use of a marking foil which is sandwiched between the die and the plastic part during stamping.

One advantage of using hot stamping over other labeling processes is that it is a dry process. This greatly simplifies the process of applying the image and allows for high repeatability of the image.

To create the initial image, it's best to have a high quality photo/print to work from. This will allow the engraver to supply a more detailed die. When choosing the type of die to use, it's important to consider the part that is to be stamped and purpose of the application. Metal dies will typically create sharper images, last longer and will not deform like a silicon die can. Yet, this deformation will allow a silicon die to mark a part that has some contour to it. In either case, the die will need to be supported underneath with fixturing.

Fixturing is a necessary and important requirement with hot stamping. The part will need to be able to support the necessary level of pressure needed for labeling. A good rule of thumb is to ensure the part is fixtured in such a way to handle 500 psi (pounds per square inch).

Steinwall has hot stamped plastic parts for over 20 years. If there's an application where a label is needed on a part, hot stamping can be a cost effective method in providing it.