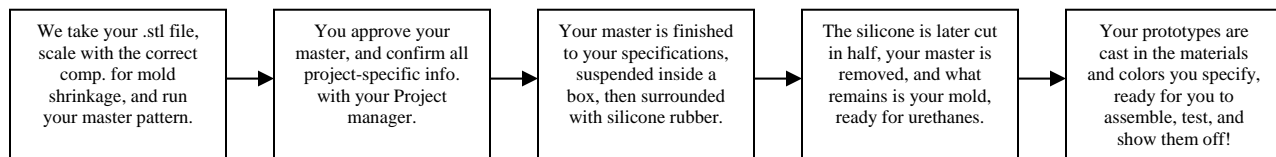


## Urethane Casting at Protogenic

At Protogenic, we create beautiful, accurate, and functional cast urethane parts from your CAD files using the process of silicone RTV (Room Temperature Vulcanization) molding.



*Here's how the process works:*



**Mold Life:** Mold life will normally run from 25-35 pieces for Shore D materials, 35-50 pcs. for Shore A, so the best value from the fixed cost of each mold can be achieved by casting as many parts as possible. Small features, thin areas, undercuts, and cavities that are deeper than they are wide can all lead to reduced mold life, please ask your Project Manager or Estimator for a mold life estimate of your file.

**Appearance:** Our silicone mold prices assume textured cosmetic surfaces, and include one free custom color match, per mold. So if your project involves 4 different molds, that's 4 color options for you to play with (additional matches are only \$50). We can approximate just about any color, and can reference your physical sample (color chip) or Pantone® number, just tell your Project Manager what you're looking for.

**Lead times:** Our lead times are typically 4-5 days to your first cast part, from the day we receive your approved master pattern. If your design has a dimension longer than 6 inches, your mold may need additional time for the silicone to reach complete shrinkage, sometimes adding another 4 days to your schedule. Casting rates vary with material choices, averaging 2-5 parts per day.

### What else...

- We will typically send you your SLA masters for approval with a Functional level of finish. Doing this not only saves you valuable time, but also saves you money. We can, however, provide a mold-ready finish to your SLA masters at your request, at the approval stage. See the SLA Finish Levels page for a detailed explanation of each, and ask your estimator for more information about what finish level makes the most sense for your mold master approval.
- Any areas that require polish may have additional charges, please let your Estimator know if you'd like a quote on any polished parts.
- Threaded fasteners are installed in your cast parts upon request, based on the information in this document for our recommended boss designs for tapped threads, Helicoils™ and threaded inserts.
- For the most part, several different materials can be cast in the same mold. This can be especially useful when your project calls for rubber components, and you want to make sure the material durometer gives you "just the right feel." Your Project Manager is happy to work with you on any multiple material, and/or multiple color molding projects.
- Remember to refer to the Shore A and Shore D material spec sheets in this document for a list of available cast urethanes. Don't see exactly what you're looking for? Special orders are available, just let your project manager know what your needs are, and we'll do our best to accommodate.