

Quick-Sil FIRM

Technical Datasheet



Castaldo® Quick-Sil® Firm is a two-part room temperature vulcanizing (RTV) silicone molding putty that produces tough, strong, long lasting production jewelry molds for lost wax casting with 0% shrinkage.

Quick-Sil makes production molds, but is ideal for short runs or the last minute emergencies that are typical in any Jewelry manufacturing business. Quick-Sil is easily mixed by hand, it is not a liquid, making it ideal for those without a vulcanizer or a vacuum pump. Molds cure within 15 minutes.

Castaldo® Quick-Sil® Firm is Safe, Non-Hazardous and Non-Toxic, with no unpleasant fumes or odours and is the easiest way to make molds and cast a wide variety of objects. This is because of its heat resistance, low temperature metals such as pewter and other low melting fusible alloys can be poured directly into the rubber molds. Other common casting materials include injection waxes, resin compounds, ceramic materials and soap.

Name Quick-Sil Firm

Shore A Hardness	40 +/- 2
Mix Ratio by Weight	1:1
Rubber Shrinkage	0.0%
Viscosity	Clay-like Putty
Vulcanises at	70°F / 21°C
Cure Time	Less than 15 mins
Specific Gravity	1.32
Elongation Before Break	550%
Tensile Strength Before Break	4.1 n/mm ²
Tear Strength Die C Before Break	20.1n/mm ²
Colour	Light Green

*Shrinkage rates given are for the rubber mold itself. Final casting shrinkage rates depend on moldmakers and caster's skill, knowledge, precision and attention to detail.

** Specific gravity. Water = 1.00. Low specific gravity = more molds per pound/kg.



New Castaldo Quick-Sil is easy to use - merely mix equal parts of Part A and Part B by hand (Figure 1). There is no need to measure precisely or vacuum in order to achieve optimum results.

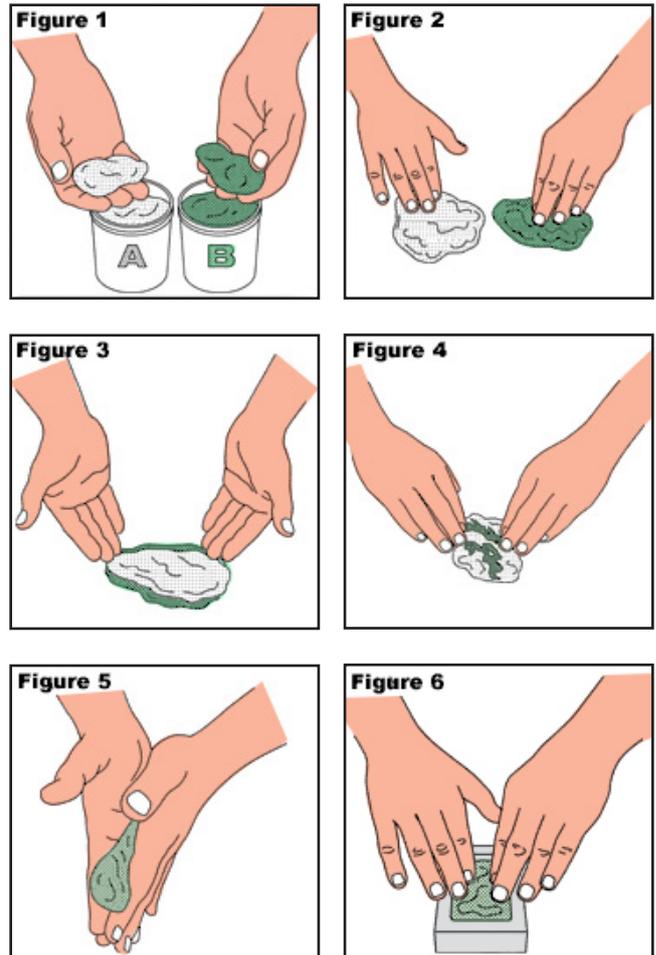
The easiest way to achieve this is to make thin pancakes of Part A and Part B on a table top or similar work surface. (Figure 2) Once the two pancakes are formed, place one on top of the other (Figure 3) and then mix them rapidly by pushing down on your thumbs (Figure 4), kneading with both hands or rolling between the palms of your hands, (Figure 5) or any combination of these techniques.

Press the mixed rubber compound into a mold frame, push the model into the rubber and then cover the model with more rubber compound. (Figure 6) A mold press, vise, clamp or heavy weight is essential to ensure that air bubbles will be driven out of the mold and one uniform piece of rubber is created.

The cure rate for new Castaldo Quick-Sil is affected by small temperature changes. Warm hands will cause shortened work time and cure time and cold hands will produce longer work time and cure time. Please note that the more vigorously you mix part A and part B, the more heat will be generated in the rubber itself. Working time (and cure time) will be reduced.

Please also note that placing Castaldo Quick-Sil in cold mold frames will result in longer cure times. We suggest warming the mold frame slightly to approximately 90°F / 32°C before beginning the process.

The oily residue on your hands after making a mold with Castaldo Quick-Sil is ordinary mineral oil, also commonly known as "baby oil" and used in child care. It is harmless and will not stain clothing, etc. Occasionally Castaldo Quick-Sil molds will "sweat" oil for a day or two after being made or if not used for a while. This is harmless and normal. It can easily be cleaned off with soap, water and a soft brush.



Problem	Cause	Solution
Rubber does not cure-remains soft	Over mixing	Uniform color not necessary- mix less
Rubber cures too slowly	1) Rubber too cold 2) Mold frame too cold	1) Allow rubber to warm to room temperature; mix more vigorously to generate heat 2) Warm mold frame slightly
Air bubbles in finished mold	Mold not pressed during cure	Press mold in cold press, between c-clamps or other device within the working time
Knit lines, folds & creases visible in finished rubber mold	Work time exceeded — Rubber began to cure during molding	Do not exceed working time
Oil forms on surface of finished mold	Normal	Wipe off oil