

# LiquaCast® Long-Life Strong

## 0% Shrinkage RTV Liquid Jewelry Molding Rubber

### Technical Datasheet



**Will Not Soften with Age - Ordinary low-cost RTV liquid rubber molds become soft and unusable over time, wasting the time, effort and skill invested in making them. Sometimes they even turn back into liquid rubber! LiquaCast® Long-Life™ Strong 0% shrinkage RTV rubber is formulated to last for decades without softening, distorting or degrading in any way.**

Have you looked at your library of rubber molds recently? If you have made low-cost RTV liquid rubber molds in the past, many of them are probably becoming useless due to age, sometimes even after only 2 years. Years of work could be slowly melting.

Wouldn't you rather have molds that last and last?

**Extremely Strong and Firm - LiquaCast Long-Life Strong makes molds that are extremely strong, tough and tear-resistant, another reason they will last and last despite repeated use. It's perfect for complex molds, difficult undercuts and spirals and cores. And it's compatible with most computer-generated CAD-CAM resin and difficult to mold CAD-CAM wax patterns.**

**Much Easier to Use - LiquaCast Long-Life is easy to use, too. Low viscosity means that it is easy to measure, easy to mix, easy to vacuum and easy to pour. And it's easy 1:1 mix ratio by either weight or volume means that measuring and mixing mistakes are much less likely than with 1:10 compounds.**

LiquaCast Long-Life Strong 0% shrinkage liquid RTV is a firmer rubber - ideal for delicate & difficult to inject patterns.

Firmer rubber means less pattern distortion during injection. Small channels will not be squeezed closed during injection and result in patterns that are not filled completely. Great for filigree!

**Makes More Molds - LiquaCast Long-Life Strong costs a little more than other low-cost RTV rubbers, but produces up to 40% more molds per pound or kilogram. Price per mold is more important than price per pound or kilogram. Long-Life compares favorably in price with other low-cost liquid RTV rubbers.**

Molds made with LiquaCast Long-Life Strong have a glossy, shiny surface that produce waxes with a glossy, shiny surface. That means greater efficiency because the final castings require less polishing and generate less metal loss.

LiquaCast Long-Life strong rubber is yellow in color and is packaged in plastic containers in two-part kits weighing 1 kg. (2.2 lbs.), 8 kg. (17.6 lbs.) and 20 kg. (44.0 lbs.)

#### Name

#### LiquaCast® Long-Life Strong

|                                  |                        |
|----------------------------------|------------------------|
| Shore A Hardness                 | 45 +/- 2               |
| Mix Ratio by Weight              | 1:1                    |
| Rubber Shrinkage                 | 0.0%                   |
| Viscosity                        | Very Low 2,000cps      |
| Vulcanises at                    | 70°F / 21°C            |
| Cure Time                        | 24hrs                  |
| Rapid Cure Time @150F / 65C      | 90 mins                |
| Specific Gravity                 | 1.02                   |
| Elongation Before Break          | 1,135%                 |
| Tensile Strength Before Break    | 2.8 n/mm <sup>2</sup>  |
| Tear Strength Die C Before Break | 13.4 n/mm <sup>2</sup> |
| Colour                           | Yellow                 |

\*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.

Castaldo® LiquaCast® Long-Life™ Strong liquid molding rubber is NOT a silicone rubber. Procedures may be different than those you may be accustomed to using. Please read and observe the following instructions carefully.


1. STIR BEFORE USE! Mix 1 Part A and 1 Part B by WEIGHT. Components MUST BE WEIGHED CAREFULLY. Use an accurate scale. DO NOT MEASURE BY VOLUME. DO NOT ESTIMATE. DO NOT GUESS! Make sure both parts are at room temperature.
2. Pour the required amounts of both parts A & B into a mixing container. A rubber mixing bowl of the type commonly used to mix jewelry investment is ideal.
3. Always pour catalyst (Part A) into rubber (Part B).
4. Mix thoroughly by hand for 3 to 4 minutes until no traces of the catalyst can be seen. Take care to scrape the sides of the mixing bowl into the centre several times during mixing.
5. Make sure the bowl is big enough to allow for temporary expansion of the rubber during vacuuming of 300% to 400% without overflowing.
6. Vacuum the liquid rubber for approximately 5 minutes, making sure that it boils and bubbles vigorously. Vacuuming is complete once the rubber rises and collapses. Do not wait for the rubber to stop bubbling completely.
7. Pour the liquid rubber into the mold frame, taking care to avoid entrapping air. Vacuum again for 3 minutes. Do not over-vacuum.
8. Working time before cure begins is approximately 45 to 60 minutes at room temperature.
9. Put the mold aside to cure at room temperature (77°F / 25°C) for 16 to 18 hours. A period of 24 hours is best. Always remember that longer cure times will improve the mold and will not hurt it, while shorter mold times will result in soft and deformed molds.

1



Shake well before use.

2




Measure equal parts by weight of both the primary (Part A) and curing (Part B) agents.

3



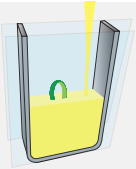
Add Part A to Part B agents until colour is uniform.

4



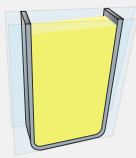
Vacuum.

5



Pour over application directly after agitation and vacuum.

6



Leave until fully cured.

The following is only a guide, the mass of your model will increase or decrease the amount of rubber needed.

| Mold Size    | Part A  | Part B  | Total   |
|--------------|---------|---------|---------|
| 0.75"/ 19 mm | 60.0 g  | 60.0 g  | 120.0 g |
| 1.00"/ 25 mm | 77.0 g  | 77.0 g  | 154.0 g |
| 1.25"/ 32 mm | 105.0 g | 105.0 g | 210.0 g |
| 1.50"/ 38mm  | 113.0 g | 113.0 g | 226.0 g |