

EconoSilFrost

Economical RTV Liquid Silicone Rubber



Technical Datasheet



New EconoSil Frost 1:1, is the latest translucent RTV silicone rubber in the Castaldo range.

EconoSil Frost 1:1 is a translucent two part 0% Shrinkage silicone molding rubber that cures at room temperatures and cures even faster at slightly warmer temperatures.

New EconoSil Frost makes strong, tough, tear resistant silicone rubber molds that remain formed and do not become softer over time.

EconoSil Frost works well with all 3D printed resin models and patterns. EconoSil is easy to measure, mix and pour.

EconoSil Frost is strong, economical and long lasting.

- Rapid Molds from Rapid Prototypes.
- Finished Molds in as Little as 120 Minutes.
- Ideal for all 3D, CAD-CAM, Wax and Resin Models.

Available in the following kit sizes:

- 1Kg Kit (500g + 500g)
- 2Kg Kit (1Kg + 1Kg)
- 8Kg Kit (4Kg + 4Kg)

Name EconoSil Frost

Shore A Hardness	33 +/- 2
Mix Ratio by Weight	1:1
Rubber Shrinkage	0.0%
Viscosity	10,000cps
Cure Time	5 - 6 hours
Rapid Cure Time @120°F / 50°C	60 - 120 mins
Specific Gravity	1.1
Elongation Before Break	400%
Tensile Strength Before Break	6.8 n/mm ²
Tear Strength Die C Before Break	13.5 n/mm ²
Colour	Translucent

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


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



Castaldo EconoSil Frost is the first silicone RTV rubber in the Castaldo Liquid rubber range. Please read and observe the following instructions carefully.

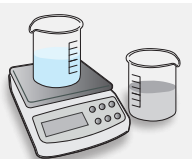
1. **STIR BEFORE USE!** Mix 1 Part A and 1 Part B by **WEIGHT**. Components **MUST BE WEIGHED CAREFULLY**. Use an accurate scale. **DO NOT MEASURE BY VOLUME. DO NOT ESTIMATE. DO NOT GUESS!** Make sure both parts are at room temperature.
2. Pour the required amounts of both parts A & B into a mixing container. 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 5 to 6 hours. 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 required parts by weight.

3



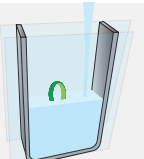
Add Part A to Part B

4



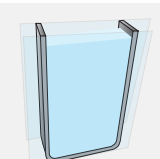
Vacuum.

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	166.0 g	166.0 g	232.0 g