

General Properties

Foodsil is a two-part, high tear strength, RTV platinum cure, flexible silicone mould rubber compound. This silicone is recommended as a mould material for; food applications (FDA compliant) rapid prototyping, casting polyurethane, epoxy, and polyester resins, wax and a wide range of other casting materials. Platinum cure silicone rubbers are chemically sensitive to latex, sulfur, and certain other materials during the mould making process. It is recommended to do a small surface test before commencing if unsure about surface compatibility.

Physical Properties

Foodsil	Mix Ratio (Parts By Weight)	Pot life	Demould time	CPS viscosity	Shore A Hardness +/- 2	Tear Strength N/mm	Elongation at break	Linear Shrink-age	Specific Gravity
20	1A : 1B	45 mins	24 hrs	6000	20	14	550%	0.1%	1.05
40	1A : 1B	45 mins	24 hrs	8000	40	27	350%	0.1%	1.1

Processing

Before measuring out the components, pre-stir Part A and Part B separately (this mixes any components that may separate during storage). Measure out required amounts of Part A and B into mixing container, and mix thoroughly for 3 minutes making sure to scrape the sides and bottom of the mixing container several times. Transfer mixed material into clean mixing container and stir again. Be careful not to whip and beat the material during the mixing process as this introduces unnecessary air bubbles. For best results after mixing, vacuum de-air material before casting (29 inches of mercury required) and allow for up to 5 x expansion during the vacuum process.

For Brush-On applications and for the silicone to hold a vertical surface, Silicone Thixo (Thi-Vex II) should be added to increase viscosity. By weight 0.5% (thick), 1% (thicker), 2% maximum dosage (thickest). Please note that by adding silicone thinner, Thivex II or silicone pigment, FDA Food Safe certification is no longer valid.

For a Block & Cavity moulds (where the silicone is poured) Silicone Thinner can be added to reduce viscosity which assists in reducing air bubbles and capturing intricate surface detail. Max dosage by weight 10%. Please note that by adding Silicone Thinner, Shore A hardness and tear strength are proportionally reduced.

Pouring - for best results, pour the silicone rubber in a thin stream to the lowest part of the mould in a single spot and allow material to flow around the model and self level. It is suggested to cover the model by at least 10 mm.

Curing/Post Curing - allow the mould to cure for 24 hours at room temperature (23 °C) before demoulding. Post curing the mould an additional 4-6 hours at 100 °C will maximize some of the materials physical properties. Allow mould to cool to room temperature before using. Do not cure rubber where temperature is less than 23 °C. The silicone moulds can be cleaned with mild soap and water then rinsed and left to dry.

Mould performance & storage

The physical life of the mould depends on how you use it (materials cast, frequency etc.). Casting abrasive materials such as concrete can quickly deteriorate mold detail, while casting non-abrasive materials like wax or plaster will not affect mould detail. Before storing, the mould should be cleaned with soap & water solution and wiped fully dry. Two part (or more) moulds should be assembled. Moulds should be stored on a level surface in a cool, dry environment. Casting Plaster into the mould prior storing will extent mould library life.

Disclaimer

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