

Technical Data Sheet

CRYFLA® Platinum-Cured (Addition-Cured) Silicone Rubber Molding Silicone

Manufacturer / Supplier

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Product Description

CRYFLA® Molding Silicone is a high-quality, platinum-cured silicone rubber (RTV-2) characterized by excellent elasticity, precise detail reproduction, and easy processing. Ideal for **mold making, model building, prototyping, body casting, and food molds**. The material cures bubble-free and produces durable molds with smooth surfaces. Suitable for both creative and professional applications.

Technical Data

Variant	<u>Hardness</u> <u>00</u>	<u>Hardness</u> <u>10</u>	<u>Hardness</u> <u>20</u>	<u>Hardness</u> <u>30</u>	<u>Hardness</u> <u>40</u>
Hardness (Shore A)	0±1	10±1	20±1	30±1	40±1
Mixing ratio (by weight)	1:1	1:1	1:1	1:1	1:1
Color	White – transparent	White – transparent	White – transparent	White – transparent	White – transparent
Viscosity (cps)	1200-1800	1600-2500	1600-2500	3500-5500	6000-8000
Working time (minutes)	30-40	30-40	30-40	30-40	30-40
Curing time (hours, 24 °C)	2-3	2-3	2-3	2-3	2-3
Tear strength (kN/m)	6-8	15-18	18-22	18-25	14-18
Tensile strength (kN/m²)	3-5	3,5-5,5	4-6	3,5-5,5	3-5
Elongation at break (%)	400-600	450-650	450-650	450-650	400-600
Shrinkage (%)	<0,1%	<0,1%	<0,1%	<0,1%	<0,1%

Max. temperature (°C)	200	200	200	200	200
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Applications

This silicone rubber is suitable for a wide range of industrial, artistic, and hobby applications. It can be used to produce elastic, highly detailed molds, such as for:

- Prototypes & models (e.g., 3D-prints, technical parts)
- Art & design (sculptures, furniture, artificial stone)
- Candles, soaps & wax models
- Food molds (chocolate, baking, muffin molds)
- Construction & decoration (concrete, plaster, cement, fiberglass)
- Body casting & cosplay (e.g., hands)
- Erotic products (e.g., toys or dolls)

Model Preparation

Porous or absorbent materials (e.g., plaster, clay, wood) should be sealed before casting. Either with a suitable varnish or a release agent such as **release vaseline** or **release wax**, applied thinly and evenly.

When working with epoxy resin, using a release agent is essential, otherwise the silicone mold may bond irreversibly with the resin.

For body casting (e.g., hands), lightly coat the skin with a thin layer of moisturizer beforehand so that the silicone can be removed easily after curing.

Mixing

Process the material at a room temperature of **23–25 °C**.

If using pigment paste, mix it first with the silicone base (Component A) before adding the curing agent (Component B). Follow the pigment's dosage instructions.

Mixing ratio: **1 : 1 by weight** (e.g., 500 g A + 500 g B).

Weigh both components accurately and stir thoroughly - including edges and bottom of the container - avoiding trapped air.

Only mix as much material as can be processed within the working time.

For especially bubble-free molds, degas the mixture in a **vacuum chamber**.

Tip: Pour the mixed silicone into a second clean container and stir again ("double-cup" technique). This ensures homogeneous curing without unmixed residue.

Matching silicone color pastes and additives (for accelerating or slowing down the curing time) are available in our shop.

Pouring the Silicone

Pour the mixed silicone evenly and slowly into the prepared mold. Start at a corner or the lowest point and let it flow so that trapped air can escape upward.

To minimize air entrapment, pour the silicone in a **thin stream from some height** and gently tap the mold during filling to help bubbles rise.

For complex or detailed originals, brush on a **thin initial coat** of silicone before pouring the rest. This captures fine surface details accurately.

For models with **undercuts**, a **two-part mold** may be required. In that case, apply a thin layer of release agent (e.g., vaseline or wax) between the silicone halves to prevent bonding.

Post-Processing

After demolding, allow the silicone mold to rest for at least **24 hours** to complete curing and achieve optimal mechanical properties.

The mold can be used after 24 h but reaches full strength and durability after about **7 days**.

Storage & Shelf Life

Unopened containers are stable for up to **12 months** when stored cool, dry, and protected from light at temperatures below **25 °C**.

Inhibition - Materials to Avoid

Curing may be inhibited or prevented by contact with certain substances, including:

- Sulfur-containing clays or rubbers
- Amines (in some epoxies, adhesives, paints)
- Tin compounds (e.g., tin catalysts from condensation-cured silicones)
- Certain latex materials (e.g., latex gloves or natural latex milk)
- Some cleaning agents or unsuitable release agents

If uncertain, always run a **small compatibility test** beforehand.

Safety

- The silicone becomes **food-safe only after complete curing** (at least 24 h at 23–25 °C).
- Liquid components must **not** come into contact with food, beverages, or feed, and are **not edible**.

- Avoid contact with skin and eyes. In case of contact, rinse thoroughly with water and seek medical advice if necessary.
- After body casting, wash the skin with soap and water.
- Work in **well-ventilated areas** and avoid inhaling vapors during mixing and pouring.
- Wear **protective gloves** (e.g., nitrile) and **safety glasses** if needed.
- Before first food use, clean the mold with warm water and mild soap.
- Components A and B must not contact dirty or incompatible tools.
- Ensure no residues or particles from mixing tools enter the silicone.

Important Safety Notes

- Do not swallow.
- Not edible.
- Not a toy.
- Not for medical or therapeutic use.
- Keep out of reach of children.

Allergy Information

May cause allergic reactions in individuals sensitive to silicone.

Discontinue use immediately if irritation occurs and seek medical advice.

Disposal

Dispose of according to **local regulations**.

Test Run

A small **test mold** is recommended to verify material compatibility and desired results before production use.

No liability is assumed for damage resulting from improper application.

Compliance Notice

CRYFLA® molding silicone complies with **FDA 21 CFR 177.2600**, meets the requirements of **REACH (EC) 1907/2006**, and is **RoHS-compliant**.

It is FDA-tested for **food-contact applications**, free from **SVHC** substances, and low in harmful components in accordance with EU regulations.

This data sheet does not constitute a guaranteed specification. Subject to change without notice.