



Technical Data Sheet (TDS)

Version: V4.2 Revision Date: 2025-10-24

Life Casting Silicone Rubber

Skin-Safe Silicone Rubber

1. DESCRIPTION

Life casting silicone is a skin-safe, platinum catalyzed material that is easily pigmented. After mixing Part A and Part B, it cures quickly at room temperature. Specifically engineered for life casting, prosthetics, and special effects applications, this material is characterized by extremely low hardness and high elongation. Once cured, the rubber is exceptionally soft, elastic, and has a skin-like feel, capturing the finest details.

2. FEATURES



1. Skin-safe.
2. Easy 1:1 mix ratio.
3. High elongation & flexibility.
4. Odorless with no by-products.
5. Exceptionally soft with a realistic, skin-like feel.

3. APPLICATIONS

Life casting silicone is prized for its realism and skin-safe properties. Its unique softness and high elongation make it ideal for creating hyper-realistic reproductions and prosthetics.

Special Effects & Animatronics: Creating realistic masks, special effects skins, and animatronic figures requiring extreme flexibility and repetitive motion.

Prosthetics & Orthopedics: Manufacturing soft, life-like prosthetic limbs, orthopedic devices, and cushioning pads.

Medical & Museum Displays: Producing anatomical models, simulated human organs for training, and museum-quality reproductions.

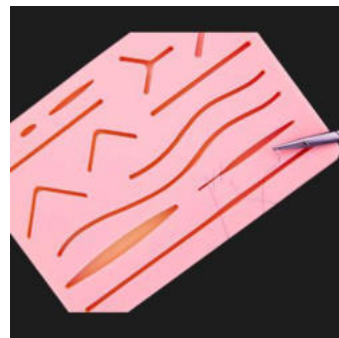
Adult Novelty Products: Creating realistic dolls and other novelty items.



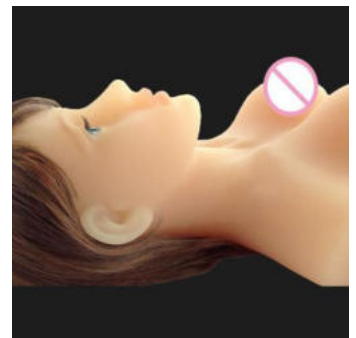
Silicone Sex Toys



Silicone False Ear



Medical Teaching Supplies



Silicone Doll

4. TECHNICAL DATA

Product Name	Hardness (Shore A)	Mix Ratio by Weight	Pot Life (Minute)	Cure Time (Hour)	Mixed Viscosity (Cps)	Tear Strength (N/mm)	Tensile Strength (Mpa)	Elongation at Break (%)
RTV-4020	20±2 (C)	1A:1B	30-40	4-5	2,200±200	4±0.5	1.0±0.5	560±50
RTV-4030	30±2 (C)	1A:1B	30-40	4-5	2,500±200	6±0.5	1.2±0.5	560±50
RTV-4100	0±2 (C)	1A:1B	30-40	4-5	2,800±200	9±0.5	1.5±0.5	550±50
RTV-4105	5±1	1A:1B	30-40	4-5	4,000±200	11±0.5	2.0±0.5	540±50
RTV-4110	10±1	1A:1B	30-40	4-5	4,000±200	25±0.5	4.0±0.5	510±50
RTV-4115	15±1	1A:1B	30-40	4-5	4,000±200	26±0.5	5.0±0.5	450±50

Notes on Technical Data

- (1) **Test Conditions:** All data is based on tests conducted at 25°C (77°F). Higher ambient temperatures will decrease the pot life and cure time.
- (2) **Surface Finish Advisory:** Please be aware that the softest grades in this series (RTV-4020, RTV-4030, and RTV-4100) may cure to a slightly tacky surface. This can be resolved by applying talcum powder.
- (3) **Custom Colors:** The standard product is translucent. Pigment is added to Part B for custom colors. Appearance depends on the Part A base:
 - **Translucent:** Part A (translucent) + Part B (pigmented)
 - **Opaque (solid):** Part A (white base) + Part B (pigmented)

5. PROCESSING NOTES

- (1) **Batch Consistency:** For reliable results, always use Part A and Part B from the same kit and batch.
- (2) **Skin Safety Test (Crucial):** Although this silicone is formulated to be skin-safe, individual sensitivities vary. Always perform a small patch test on the model's skin before proceeding with a full application to check for any allergic reaction.
- (3) **Cure Inhibition Warning:** This life casting silicone is highly sensitive to contaminants. Ensure skin is clean and free of lotions or cosmetics. Avoid contact with sulfur (e.g., latex gloves, some clays), tin compounds (condensation-cure silicones), and amine compounds, as these will prevent curing.
- (4) **Vacuum Degassing:** While the low viscosity allows for natural bubble release, vacuum degassing is still recommended for achieving the highest quality, bubble-free results.

6. SAFETY PRECAUTIONS

General Safety: This product is stable under normal conditions and will not undergo hazardous reactions. Although formulated to be skin-safe, always follow standard industrial hygiene practices. Keep out of reach of children.

First Aid Measures:

- **Skin Contact:** Wash the affected area thoroughly with soap and water. Seek medical attention if irritation or symptoms occur after washing.
- **Eye Contact:** Rinse eyes cautiously with plenty of clean water for at least 15 minutes. Seek medical attention if irritation persists after washing.
- **Inhalation:** Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Move to fresh air if discomfort occurs.
- **Ingestion:** Do not induce vomiting. Rinse mouth thoroughly with water and seek immediate medical attention if symptoms occur.

7. STORAGE & SHELF LIFE

- (1) **Recommended Storage:** Store in a cool, dry, well-ventilated place at room temperature (15–25 °C / 60–77 °F). Keep away from direct sunlight, high temperatures, open flames, and incompatible materials such as strong acids and bases.
- (2) **Shelf Life:** This product has a shelf life of 24 months from the date of manufacture when stored properly. Storing at higher temperatures may reduce the usable shelf life. Note that viscosity may gradually increase over prolonged storage.
- (3) **Opened Containers:** Once opened, containers must be tightly resealed immediately after use to prevent contamination and moisture ingress, which can affect performance.
- (4) **Beyond Shelf Life:** If the product is stored beyond its specified shelf life, it may still be usable. However, it is the user's responsibility to test and confirm its performance and suitability for the intended application before use.

8. PACKAGE

Our life casting silicone is supplied in matched kits containing Part A and Part B. We offer the following standard sizes:

Total Kit Size	Part A	Part B
2 kg	1 kg	1 kg
10 kg	5 kg	5 kg
50 kg	25 kg	25 kg
400 kg	200 kg	200 kg
2000 kg	1000 kg	1000 kg