



ADDITION-CURE SILICONE RUBBER

➔ **Elkem and Freeman RTV Silicone Rubber** materials are used where a flexible, self-releasing mold material is required. These silicones are excellent for rapid prototype tooling, polyurethane casting, and general silicone mold-making. The addition-cure silicones use a platinum-based catalyst. Condensation-cure silicones with a tin-based catalyst are also available.

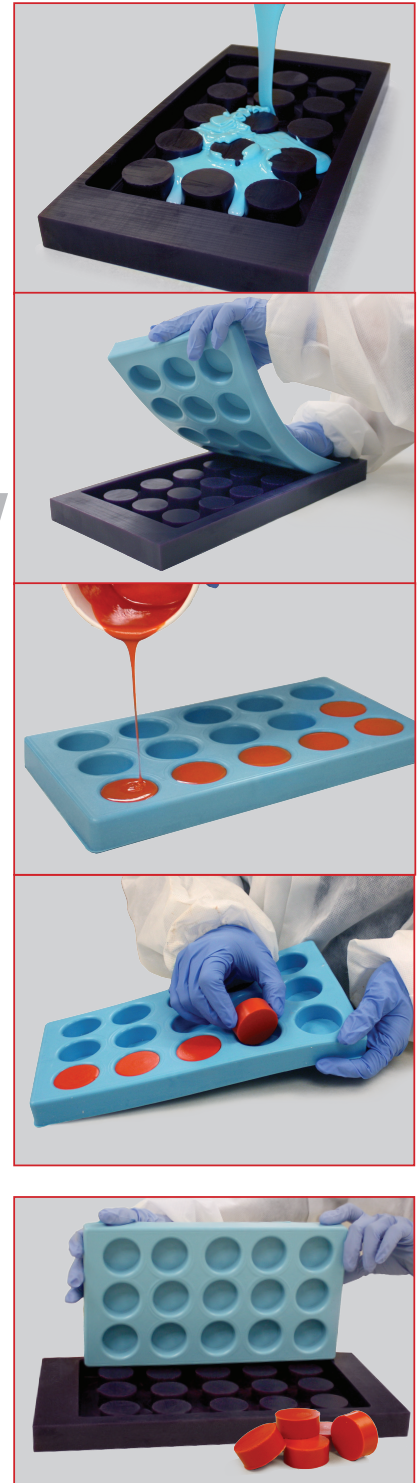
Product Features

- > Unlimited shelf life (in cured state)
- > Very low shrinkage for increased mold accuracy
- > Higher durometers for mold stability
- > Excellent heat resistance up to 400°F
- > Ideal for polyurethane casting – the platinum-based catalyst keeps cured silicone from inhibiting urethane curing

Specifications

	Hardness (Shore A)	Mixed Viscosity (cps)	Mix Ratio (by wt.) Base:Catalyst	Gel Time (min.) @ 72°F	Demold Time (hr.)	Elongation (%)	Tear Strength (ppi)	Specific Gravity	Volumetric Yield (in. ³ /lb.)
V-249	67	100,000	10:1	300	3-4*	200	-	1.24	22.3
V-330 w/ CA-35	25	10,000	10:1	100	16	510	180	1.30	21.3
V-330 w/ CA-35FC	23	10,000	10:1	40	4-6	480	180	1.30	21.3
V-330 w/ CA-45	33	10,000	10:1	100	16	500	170	1.30	21.3
V-330 w/CA-45FC	33	10,000	10:1	40	4-6	475	150	1.30	21.3
V-340 w/ CA-35	40	25,000	10:1	100	16	500	180	1.33	21.0
V-340 w/ CA-35FC	36	25,000	10:1	40	4-6	500	180	1.33	21.0
V-340 w/ CA-45	47	25,000	10:1	100	16	400	150	1.33	21.0
V-340 w/ CA-45FC	45	25,000	10:1	40	4-6	350	125	1.33	21.0
V-340 w/ CA-55	53	25,000	10:1	100	16	340	75	1.33	21.0
V-340 w/ CA-55FC	53	25,000	10:1	40	4-6	300	85	1.33	21.0
V-3040 w/ V-3020B	22	40,000	10:1	45	16	525	130	1.08	25.6
V-3040 w/ V-3038B	36	40,000	10:1	60	16	340	100	1.08	25.6
V-3040 w/ V-3040B	38	40,000	10:1	60	16	340	120	1.08	25.6
V-3040 w/ V-3045B	45	40,000	10:1	60	16	205	130	1.08	25.6
RTV-3460	58	65,000	10:1	90	16	175	140	1.20	23.1
RTV-1556	30	12,000	10:1	90	16-24	660	130	1.10	25.2
RTV-4410	10	2,500	1:1	90	16	800	80	1.10	25.2
RTV-4410 QC	11	1,600	1:1	10	8-12	650	60	1.08	25.6
Freeman 4030	30	15,500	10:1	45	16	530	89	1.10	-
Freeman 4045	45	34,000	10:1	40	16	690	144	1.30	-
ASTM	D-2240	D-2393	-	D-2471	-	D-412	D-624	-	D-792

*Indicates heat cure



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V-249 Silicone Rubber

- ▶ 67 Shore A
- ▶ 100,000 cps Viscosity
- ▶ Beige

Long work life, high strength properties, and a 67A Shore Hardness make this two-component silicone an excellent choice for embossing rolls, heat-activated adhesive label rolls, and hot melt glue rolls. V-249 will cure at room temperature, but requires a post cure of 200°F to reach full hardness.

V-330 Silicone Rubber

- ▶ 23-33 Shore A
- ▶ 10,000 cps Viscosity
- ▶ Blue

This silicone offers two different cured hardnesses depending on the catalyst used. CA-35 results in a 25A Shore Hardness while CA-45 results in a slightly

harder compound of 33A. Both systems have high tear strength and offer the lowest viscosity in our platinum mold making line. The Fast Cure catalysts reduce the demold time from 16 hours to only 4 hours, an excellent option where same-day demold is required.

V-340 Silicone Rubber

- ▶ 40-53 Shore A
- ▶ 25,000 cps Viscosity
- ▶ Blue or Gray

V-340 is one of our most popular silicone rubber systems for prototype molding applications due to its low viscosity, high strength, and economical price

point. This versatile system also offers the flexibility of different cured hardnesses depending on the catalyst used. The Fast Cure catalysts produce a harder silicone and reduces demold time from 16 hours to only 4 hours, making them excellent options when same-day demold is required.



RTV-3040 Clear Silicone Rubber

- ▶ 22-45 Shore A
- ▶ 40,000 cps Viscosity
- ▶ Translucent

RTV-3040 is specifically formulated to make clear rubber molds and features the strength and clarity required in high-end prototyping applications. RTV-

3040 Base with RTV-3040 Catalyst provides a 38 Shore A hardness, our most popular combination. The base may also be used with other catalysts resulting in hardnesses from 22 to 45 Shore A. It is compliant to 21CFR177.2600 (repeated food contact applications).

RTV-3460 Silicone Rubber

- ▶ 58 Shore A
- ▶ 65,000 cps Viscosity
- ▶ Gray or Translucent

RTV-3460 is a two-component, addition-cure, room-temperature curing, 58 Shore A silicone rubber. It is designed for the prototype and architectural

industries where urethane elastomers and foams are commonly used. Molds from this rubber feature high tear strength, excellent dimensional stability in high pressure applications, and improved release characteristics for long mold life.

RTV-1556 Silicone Rubber

- ▶ 30 Shore A
- ▶ 12,000 cps Viscosity
- ▶ Translucent

RTV-1556 features a low viscosity for easy pouring, high tear resistance, and easy release.

It may also be used for making flexible parts and in electronic encapsulation applications.

Freeman 4030 Silicone Rubber

- ▶ 30 Shore A
- ▶ 15,500 cps Viscosity
- ▶ White

Freeman 4030 cures white and offers excellent elongation and tear strength as well as low viscosity for ease of pouring.

Freeman 4030 can be easily thickened with Fumed Silica for brush-on applications.

Freeman 4045 Silicone Rubber

- ▶ 45 Shore A
- ▶ 34,000 cps Viscosity
- ▶ Green

Freeman 4045 cures green and offers excellent elongation and tear strength as well as low viscosity for ease of pouring.

Freeman 4045 can be easily thickened with Fumed Silica for brush-on applications.

Silbione RTV-4410 Silicone Rubber

- ▶ 10 Shore A
- ▶ 2,500 cps Viscosity
- ▶ Translucent

Silbione RTV-4410 is a very soft, two-component, addition-cured silicone that is used in animatronics to create special effects skins. Because of its high

elongation, it is perfect where extreme flexibility and repetitive motion is required. Low viscosity and a convenient 1:1 mix ratio makes this silicone easy to mix and pour. It is a translucent material.

Silbione RTV-4410 Silicone Rubber

- ▶ 11 Shore A
- ▶ 1,600 cps Viscosity
- ▶ Translucent

Silbione RTV-4410 QC is a fast-setting version of Silbione RTV-4410 that can be demolded same-day. It is designed for use in special effects and orthopedic

applications, where flexibility and repetitive motion are required. This product offers a convenient 1:1 mix ratio, very soft durometer, and translucent color.