



SINCE 1998



Silicone

Production ability **30,000 tons per year**

HTV
SILICONE RUBBER COMPOUND

RTV-2
MOULD-MAKING SILICONE RUBBER

LSR
LIQUID SILICONE RUBBER

RTV-T
ELECTRONIC SILICONE RUBBER

RTV-1
SILICONE SEALANT

**DMC,D4,
RTV-107,MVQ-110**

SI-OIL
SILICONE OIL

SIC
POLYCARBOSILANE

PROFILE

“HCX”-- Shantou Haichaoxing Science & Technology Co., Ltd. is the substantial silicone supplier in China. It is “HCX” brand, famous brand. Shantou Haichaoxing Science & Technology Co., Ltd. had passed ISO 9001-2008 & SGS international management system approval, also hold Chinese local credit approval: “Honor the contract and keep our promise” and works as the golden member of China Import & Export Fair.

“HCX” is leading the research, development & production of high-tech products in the field of silicone.

“HCX” Silicone serves various kinds of industries. There are more than 1,000 categories applications. We sincerely keep us motivated & searching for excellence continually.

“HCX” products had exported to America, Europe, South America, Middle East area & Asia, etc., totally more than 45 countries.

“HCX” main products are:

Mould-making silicone rubber (RTV-2) is condensation curing type. According to the application, it has seven kinds of type: craftwork mould rubber, gypsum-cement mould rubber, wall brick mould rubber, prototype mould rubber, sculpture mould rubber, candle & soap mould rubber, metal jewelry mould rubber, etc.

Liquid silicone rubber (LSR) is classified into two types: one is additional curing type mould making silicone rubber, another is liquid products silicone rubber. Additional curing type mould making silicone rubber is widely applied in making craftwork mould, epoxy resin mould, artificial jewelry mould, button mould, food mould (as chocolate mould, cookies mould, candy mould, pie mould & cake mould), gypsum mould, cement mould, prototype mould & vacuum coating rubber etc. Liquid products silicone rubber can be the material of long lifetime printing pad & other different hardness silicone products.

Welcome every friend in the field of silicone to do the development together with “HCX”!

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“HCX” mould-making silicone rubber (RTV-2) is two components & condensation curing type. It has excellent properties, as low linear shrinkage, high tear resistance, high tensile resistance, high elongation at break, high transparency, high duplication times, high temperature resistance (limit 200°C) & long lifetime, etc.

RTV-2 Condensation curing type mould-making silicone rubber includes Component A (silicone rubber) & Component B (3~5% condensation type catalyst). It is cured at room temperature.

According to the application, it has seven kinds of type: craftwork mould rubber, gypsum-cement mould rubber, wall brick mould rubber, prototype mould rubber, sculpture mould rubber, candle & soap mould rubber, metal jewelry mould rubber. It is widely used in making mould for craftwork, PL (polyester resins), PU (polyurethane), exquisite PL, furniture decorations, resin, gypsum, cement, concrete material GRC, GRP & GRG, wall brick, culture stone, duplication of cultural relic, prototype, handmade article, rigid PU, sculpture, statue, candle, soap, stationery, lighting decoration & metal jewelry, etc. If have other application request, as making mould for shoe, porcelain or other new & special one, “HCX” can adjust the formula to cooperate with your need. In practical application, you can add special agents, as defoamer (defoaming agent), release agent & thixotropic agent, as per different requests to handle it easily.



“HCX” CONDENSATION CURING TYPE MOULD-MAKING SILICONE RUBBER (RTV-2) APPLICATION INSTRUCTION: 1. CRAFTWORK MOULD RUBBER

Applied in making mould for craftwork, PL (polyester resins), PU (polyurethane), exquisite PL, resin, also can be for gypsum, cement, duplication of cultural relic product, big statuary, furniture decorations, lighting decoration, candle & stationery.



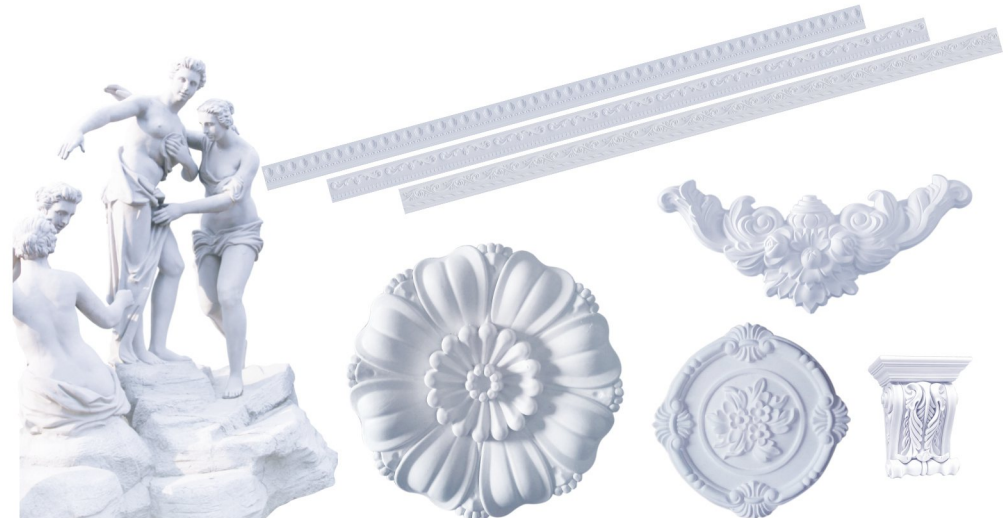
- ★ RTV-2-5122 & RTV-2-771 are especially suitable for big size mould & have good heating resistance.
- ★ RTV-2-585 & RTV-2-916 are especially suitable for small size mould.
- ★ RTV-2-916 & RTV-2-716 are low viscosity soft rubber, it has wide use.



2. GYPSUM-CEMENT MOULD RUBBER

Applied in making mould for construction decoration, as gypsum craftwork, gypsum decorative thread, cement craftwork, big statuary, concrete material GRC, GRP & GRG etc. Also it is applied in making mould for wall brick, artistic wall brick, culture stone & duplication of cultural relic, etc. It has great property of re-alkali resistance.

- ★ RTV-2-5080 & RTV-2-523 are high hardness. It is suitable for big size gypsum statuary & cement mould.
- ★ RTV-2-916 is low hardness. It is suitable for gypsum decorative thread mould.
- ★ RTV-2-1102 has great property of re-alkali resistance & high temperature resistance. Temperature limit is 130~150°C.



MOULD-MAKING SILICONE RUBBER (RTV-2)

3. WALL BRICK MOULD RUBBER

Specially applied in making mould for wall brick, artistic wall brick, culture stone & duplication of cultural relic, etc. It has great property of re-alkali resistance & heating resistance. It can endure high-temperature calcinations.

★ RTV-2-1102 temperature limit is 130~150℃.



4. PROTOTYPE MOULD RUBBER

Applied in making mould for prototype or duplication handmade article, as porcelain, PVC plastic, low melting-point alloy, alloy toy, plastic toy products crafts & stationery, especially suitable for rigid PU & electronic equipment anti-vibration etc.

★ RTV-2-403 available for selection



5. SCULPTURE MOULD RUBBER

Applied in making mould for big size sculpture, statue & duplication of cultural relic.

★ RTV-2-2500 available for selection



6. CANDLE & SOAP MOULD RUBBER

Applied in making candle & soap mould. It is the preferred material for soft mould.

★ RTV-2-916 available for selection



7. METAL JEWELRY MOULD RUBBER

Applied in making metal & jewelry mould. Temperature limit is 250~300℃.

★ RTV-2-404 hardness is 40±1 Shore A. It is red color.



INSTRUCTION:

1. The first section, please mix by mixer, then the rubber will be lower viscosity & easy to handle.
Attention: mix 300~400 circles/min (the limit is less than 900 circles) & mix 1 minute.
2. If necessary, add 1~2% of defoamer (Simethicone, viscosity is 350cps).
3. Add catalyst according to instruction rate exactly.
Further mix until two components fully mixed.
4. Use a vacuum pump with a cover or a vacuum machine about 10 minutes to eliminate the air for RTV rubber mixture, then there will be no bubble.
5. Make moulds by perfusion or coating procedure.
6. If increase or decrease catalyst amount, it may cause failure.
7. If request curing faster, it can be heated by low temperature heating in oven.



MOULD-MAKING SILICONE RUBBER

STORAGE:

- Stay in airproof, dryness, cool & 25°C, avoid sunshine.
- Storage life: 12 months.

PACKING SIZE:

1 kg Plastic Tin: 43 x 30 x 25 cm / 12 kgs / 12 tins / carton
 5 kgs Plastic Drum: 42x42x25cm / 20kgs / 4 drums / carton
 25 kgs Plastic Drum: Ø 32 x 40 cm / 25 kgs
 200kgs Iron Drum: Ø 60 x 90cm / 200kg

Catalyst: 750 g Plastic Tin 36 x 22 x 23 cm / 7.5 kgs / 10 tins / carton



MOULD-MAKING SILICONE RUBBER (RTV-2) APPLICATION & TECHNOLOGY DATA SHEET

Item Number	Application	Curing Type	Color		Mix Rate	Viscosity (25°C mPa.s)		Consistency (25°C) g/cm³	Gel Time	Curing Condition (°C / time)			Hardness (Shore A)	Tear Strength (N/mm)	Tensile Strength (MPa)	Elongation At Break (%)	Linear Shrinkage (%)	Recycled Use (times)	Storage Life (month)
			Component A	Component B		Component A	Component B			Room Temperature (25°C)	Heating Temperature °C	Heating Temperature °C							
RTV-2-5122	Craftwork Mould Rubber	Condensation	White	100# 55#	100:3 100:5	34,000 ±2,000	-----	1.175	10 min	120min	-----	-----	24±1	22±1	37±1	520	<0.2%	160	12
RTV-2-585		Condensation	White	100# 55#	100:3 100:5	35,000 ±2,000	-----	1.2	10 min	90~120 min	-----	-----	24±1	20±1	32±1	380	<0.2%	160	12
RTV-2-771		Condensation	White	100# 55#	100:3 100:5	36,000 ±2,000	-----	1.202	10 min	120 min	-----	-----	25±1	22±1	35±1	510	<0.2%	150	12
RTV-2-916		Condensation	White	100# 55#	100:3 100:5	23,000 ±2,000	-----	1.2	15 min	120~180 min	-----	-----	17±1	14±1	27±1	220	<0.2%	150	12
RTV-2-716		Condensation	White	100# 55#	100:3 100:5	10,000 ±1,000	-----	1.2	15 min	120~180 min	-----	-----	17±1	17±1	27±1	540	<0.2%	150	12
RTV-2-5080	Gypsum-Cement Mould Rubber	Condensation	White	100# 55#	100:3 100:5	35,000 ±2,000	-----	1.2	10 min	90~120 min	-----	-----	24±1	20±1	32±1	380	<0.2%	160	12
RTV-2-523		Condensation	Translucent	100# 55#	100:3 100:5	31,000 ±2,000	-----	1.1	15 min	60~90 min	-----	-----	23±1	22±1	33±1	420	<0.2%	70	12
RTV-2-916		Condensation	White	100# 55#	100:3 100:5	23,000 ±2,000	-----	1.2	15min	120~180 min	-----	-----	17±1	14±1	27±1	220	<0.2%	150	12
RTV-2-1102	Wall Brick Mould Rubber	Condensation	White	100# 55#	100:3 100:5	34,000 ±2,000	-----	1.175	10 min	120 min	-----	-----	24±1	22±1	37±1	520	<0.2%	-----	12
RTV-2-403	Prototype Mould Rubber	Condensation	White	100# 55#	100:3 100:5	28,000 ±2,000	-----	-----	8~10 min	25~30 min	-----	-----	40±1	3.8±1	24±1	-----	<0.2%	-----	12
RTV-2-2500	Sculpture Mould Rubber	Condensation	Translucent	100# 55#	100:3 100:5	27,000 ±2,000	-----	1.1	12 min	90~120 min	-----	-----	23±1	22±1	36±1	520	<0.2%	150	12
RTV-2-916	Candle Mould Rubber	Condensation	White	100# 55#	100:3 100:5	23,000 ±2,000	-----	1.2	15 min	120~180 min	-----	-----	17±1	14±1	27±1	220	<0.2%	150	12
RTV-2-404	Metal Jewelry Mould Rubber	Condensation	Red	100# 55#	100:3 100:5	28,000 ±2,000	-----	1.35	12 min	60~90 min	-----	-----	40±1	4±1	24±1	440	<0.2%	120	12

LIQUID SILICONE RUBBER (LSR)

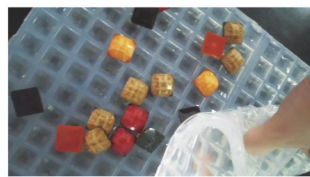
“HCX” liquid silicone rubber is classified into two types: one is additional curing type mould making silicone rubber, another is liquid products silicone rubber. It is two components. It is additional curing type & cured by Platinum type catalyst. It is up to food grade. According to application, additional curing type mould making silicone rubber has two series: one can be cured at room temperature & heat temperature both; another must be cured at heat temperature. Additional curing type mould making silicone rubber is widely applied in making craftwork mould, epoxy resin mould, artificial jewelry mould, button mould, food mould (as chocolate mould, cookies mould, candy mould, pie mould & cake mould), gypsum mould, cement mould, prototype mould & vacuum coating rubber, etc. Liquid products silicone rubber can be the material of long lifetime printing pad & other different hardness silicone products.

■ “HCX” additional curing type mould-making silicone rubber application instruction:

1. GENERAL-PURPOSE TYPE MOULD RUBBER

Applied in making exquisite handmade article mould. It can be used for craftwork mould, epoxy resin mould, artificial jewelry mould, button mould, food mould (as chocolate mould, cookies mould, candy mould, pie mould & cake mould), etc., according to different hardness.

- ★ Room temperature curing mould making silicone rubber LSR-15xx series hardness ranges from 20~40 Shore A available for selection. And the relevant technology data will be changed correspondingly. The common used items are LSR-15xx series.
- ★ Heat temperature curing mould making silicone rubber common used items are LSR-31xx series.



2. FOOD MOULD RUBBER

It is cured by Platinum (PT) catalyst. It is non-poisonous. It is up to food grade. It can be applied in making food moulds, as chocolate mould, cookies mould, candy mould, pie mould & cake mould, etc. Generally hardness is 20 Shore A & 27 Shore A.

- ★ LSR-1520 & LSR-1527 are cured at room temperature. Also they can be heated to speed up the curing process.
- ★ LSR-3120 must be cured at heat temperature (at least 50°C).



3. GYPSUM-CEMENT MOULD RUBBER

LSR Additional curing type especially has the property of high transparency, low linear shrinkage & long lifetime, etc. It is the best material of the new generation mould-making silicone rubber for gypsum-cement. Applied in making mould for construction decoration, as gypsum craftwork, gypsum decorative thread, cement craftwork, big statuary, concrete material GRC, GRP & GRG etc.

- ★ LSR-1520, LSR-1527 & LSR-3140 available for selection



4. PROTOTYPE MOULD-VACUUM COATING RUBBER

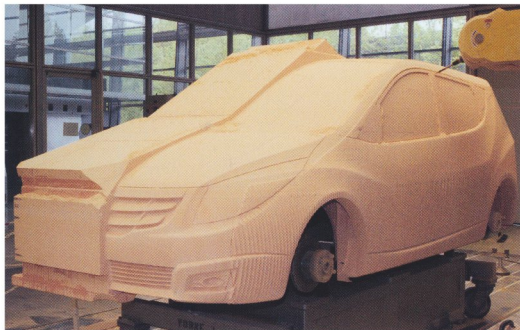
Applied in making rapid prototype mould in the process of studying, developing & designing products, or making mould for irregular shape parts, for the purpose of rapid prototyping of products at the pre-production stage & functional tests.

Also applied in making mould for prototype for the electric & electronics industry, such as TVs, home appliance, mobile phones & copy machines etc., and for the automotive industry, such as console boxes, radiator grilles & lamp housings, etc.

Among, vacuum coating silicone rubber is mainly applied in making precision mould, such as aerospace parts, automobile parts, military products, machine composite materials, glass fiber reinforced plastics & watercraft accessories etc.

★ LSR-3140 & LSR-9950 are for making prototype mould.

★ LSR-9950 is vacuum coating rubber.



■ “HCX” liquid products silicone rubber application instruction:

1. PAD PRINTING RUBBER

Applied in making long lifetime printing pads for printing the irregular patterns on plastic products, electroplating products, electronic products & trademarks, etc. The lifetime is over 70,000 times.

★ LSR-3306 available for selection



2. PRODUCTS RUBBER



It is cured by Platinum (PT) catalyst. It is non-poisonous. It is up to food grade & highly transparent. It can adjust hardness by add simethicone (viscosity is 350cps). It is used to make different hardness silicone products. More application is as following:

- It can be molding by casting & injection. It is suitable for making patches, shoe soles, baby products (as nipple, sucker & feeding-bottle, etc.), kitchenware, swimming products, food grade O-rings, sealing rings, gasket & food contact products, etc.
- Also it can be applied in making silicone rubber label for decoration patch, silk printing on cloth, trademark & costume decoration patterns, etc.
- Applied in coating on textile fabrics, as socks, knee pad & elbow pad, etc., for the purpose of skid resistance.
- Applied in fiberglass fabric coating & cloth coating in textile industry, as cotton cloth, polyester-mixed cotton cloth, nylon cloth, flax cloth, insulating cloth & camping tent cloth, etc., for the purpose of decoration, coating process & skidproofing.
- Applied in making medical & educational body mannequin & body organs, and various kinds of emulational & artificial sex products. Also applied in making silicone rubber doll, pillow stuff, sofa cushion & silicone rubber bra, etc.
- Applied in making skin of robot. It is also suitable for making artificial sexual appliance, etc.
- Applied in making all kinds of rollers in textile industry & printing industry, as printer, copycat, printing machine, textile printing machine & leather embossing, etc.
- Other new application

★ LSR-2025, LSR-3120 & LSR-3140 available for selection

For more detail application, please contact with “HCX” engineer, and apply it under the guidance.

LIQUID SILICONE RUBBER (LSR) APPLICATION & TECHNOLOGY DATA SHEET

Item Number	Application	Curing Type	Color		Mix Rate	Viscosity (25℃ mPa.s)		Consistency (25℃) g/cm ³	Gel Time	Curing Condition (℃/time)			Hardness (Shore A)	Tear Strength (N/mm)	Tensile Strength (MPa)	Elongation At Break (%)	Linear Shrinkage (%)	Recycled Use (times)	Storage Life (Month)
			Component A	Component B		Component A	Component B			Room Temperature (25℃)	Heating Temperature ℃	Heating Temperature ℃							
LSR-15xx series	Room Temperature Curing General-Purpose Type Mould Rubber	Additional	Transparent	Transparent	10:1	90,000 ± 5,000	350±50	1.1	2-3 hours	12 hours	-----	150℃/1min	20~40	13±2	4±1	350~450	<0.1%	80~100	24
LSR-31xx series	Heat Temperature Curing General-Purpose Type Mould Rubber	Additional	Transparent	Transparent	10:1	90,000 ± 5,000	350±50	1.1	2-3 hours	-----	50℃ /24h	150℃/1min	20~40	-----	-----	300~550	<0.1%	80~100	24
LSR-1520	Food Mould Rubber	Additional	Transparent	Transparent	10:1	90,000 ± 5,000	350±50	1.1	2-3 hours	12 hours	-----	150℃/1min	20	13±1	4±1	450	<0.1%	80	24
LSR-1527		Additional	Transparent	Transparent	10:1	90,000 ± 5,000	350±50	1.1	2-3 hours	12 hours	-----	150℃/1min	27	13±1	4±1	450	<0.1%	100	24
LSR-3120		Additional	Transparent	Transparent	1:1	80,000 ± 5,000	45,000± 2,000	1.08	2 hours	-----	-----	100℃/20min	19	17±1	5±1	510	<0.1%	-----	24
LSR-1520	Gypsum-Cement Mould Rubber	Additional	Transparent	Transparent	10:1	90,000 ± 5,000	350±50	1.1	2-3 hours	12 hours	-----	150℃/1min	20	13±1	4±1	450	<0.1%	80	24
LSR-1527		Additional	Transparent	Transparent	10:1	90,000 ± 5,000	350±50	1.1	2-3 hours	12 hours	-----	150℃/1min	27	13±1	4±1	450	<0.1%	100	24
LSR-3140		Additional	Transparent	Transparent	10:1	90,000~110,000	1000~1500	1.08	2-3 hours	-----	-----	100℃/20min	34	13±1	6±1	380	<0.1%	-----	24
LSR-3140	Prototype Mould-Vacuum Coating Rubber	Additional	Transparent	Transparent	10:1	90,000~110,000	1000~1500	1.08	2-3 hours	-----	-----	100℃/20min	34	13±1	6±1	380	<0.1%	-----	24
LSR-9950		Additional	White	Blue	10:1	80,000~100,000	1000~2000	1.35	40 min	5 hours	-----	150℃/3min	49	7±1	5±1	300	<0.1%	-----	24
LSR-3306	Pad Printing Rubber	Additional	White/ Translucent	Transparent/ Red	9:1	100,000~120,000	1000~1500	1.08	15 hours	2-3 hours	50℃ /24 h	100℃/20min	35	11±1	6±1	380	<0.1%	>70,000	24
LSR-2025	Products Rubber	Additional	Transparent	Transparent	1:1	100,000~120,000	90000	1.08	0.5-2 hours	-----	50℃ /24 h	100℃/40min	32	12±1	6±1	380	<0.1%	-----	24
LSR-3120		Additional	Transparent	Transparent	1:1	80,000 ± 5,000	45,000± 2,000	1.08	2 hours	-----	-----	100℃/20min	19	17±1	5±1	510	<0.1%	-----	24
LSR-3140		Additional	Transparent	Transparent	10:1	90,000~110,000	1000~1500	1.08	2-3 hours	-----	-----	100℃/20min	34	13±1	6±1	380	<0.1%	-----	24

STORAGE:

- Stay in airproof, dryness, cool & 25℃, avoid sunshine.
- Storage life: 24 months.

PACKING SIZE:

1 kg Plastic Tin: 43 x 30 x 25 cm / 12 kgs / 12 tins / carton
 5 kgs Plastic Drum: 42x42x25cm / 20kgs / 4 drums / carton
 20 kgs Plastic Drum: Ø 32 x 40 cm / 20 kgs
 200 kgs Iron Drum: Ø 60 x 90 cm / 200 kgs

SHANTOU HAICHAOXING SCIENCE & TECHNOLOGY CO., LTD.

ADD: RM 603 KIN HWA CHEONG BUILDING HENGSHAN ROAD SHANTOU S.E.Z. CHINA

FAX: +86-754-88836390

TEL: +86-754-88836391 88836392 88836393

WEB: <http://www.hcx-co.com> & <http://www.chenpin.com>

E-mail: info@hcx-co.com; chenpin@pub.shantou.gd.cn

