



**MOMENTIVE™**

## Silicone Solutions for Mold Making

[www.techsil.co.uk](http://www.techsil.co.uk)

# Mold Making Applications

## Rapid Prototyping / Precision Molding

Momentive Performance Materials Inc. offers a line-up of addition cure mold-making silicones for prototyping applications and molds for complex precision parts. These addition cure products offer enhanced tear and tensile strength with elongation properties that help provide dimensional stability while contributing to the durability and handling of the mold.

The addition type curing mechanism, which relies on temperature exposure to facilitate the curing process, helps to control shrinkage during cure which is important for parts with intricate and complex design characteristics. The family of addition cure silicones also includes oil-bleeding grades that help improve the demolding process.

Products are available in a variety of colors and appearances, ranging from solids to translucent and transparent grades. The translucent and transparent grades are candidates for split molds that are cut after cure and require optical clarity of the molded part.



## Art Reproduction, Craft, Figurines & Furniture

A portfolio of condensation cure mold-making silicones, which cure in reaction to exposure to atmospheric moisture, is offered for a variety of applications.

General purpose grades such as TSE350, TSE3502 and TSE3504 are available in low viscosities and provide ease of handling and use for basic mold-making requirements.

For applications involving intricate objects or requiring increase mold durability, a range of high tensile and tear strength condensation cure grades is also available in an array of viscosities.

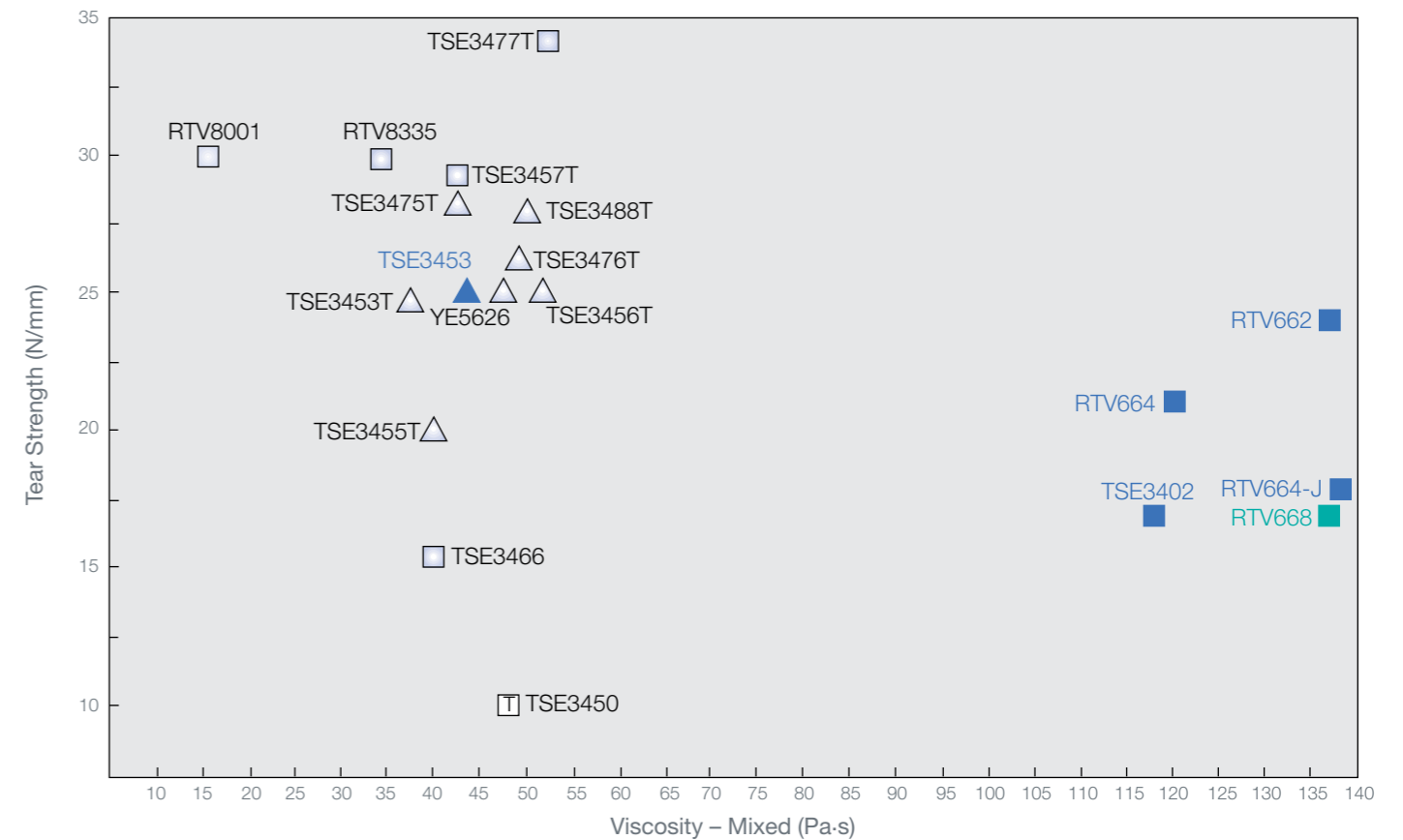


## Pad Printing Applications

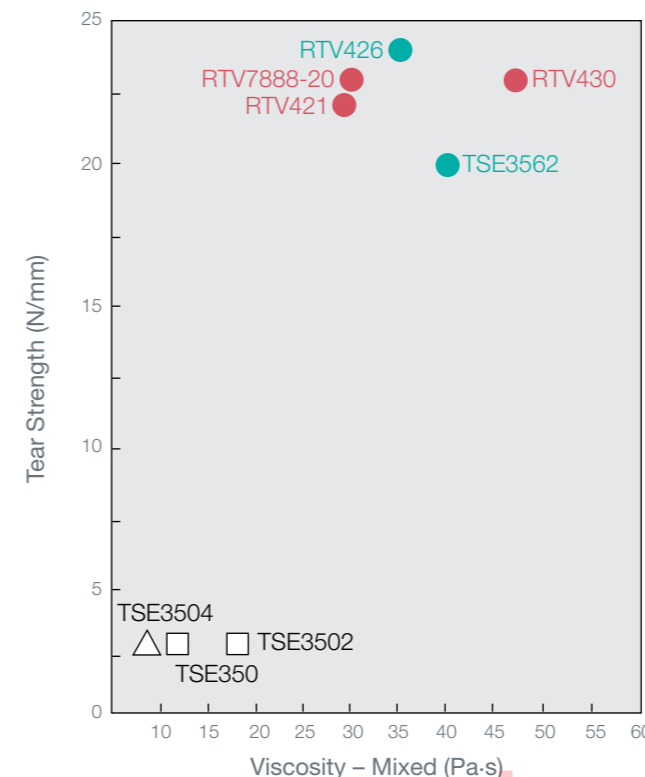
Momentive provides addition and condensation cure silicones for use in pad-printing applications. These materials exhibit flexibility, chemical resistance and release properties that make them good candidates for pad-printing. Optional silicone oils are also available to customize viscosities and hardness.

# Product Selector Guide

## Addition Cure Grades



## Condensation Cure Grades



Legend		
Hardness Symbols:		
□ Hard	△ Moderate	○ Low
Colors:		
□ Transparent	□ Translucent	
■ Blue	■ Green	
■ Red	■ White	

# Addition Cure Product Details

Properties	High Hardness										Moderate Hardness																											
	RTV662		RTV668		RTV664		RTV664-J		TSE3466		TSE3402		TSE3457T		TSE3480T		TSE3477T		TSE3450		TSE3455T		TSE3488T		TSE3453		TSE3453T		YE5626		TSE3456T		TSE3475T		TSE3476T			
Features and Benefits	Highest hardness grade. Dimensional stability and extended worklife.										High hardness grade with dimensional stability. Demonstrates sulfur resistance.																											
Oil Bleed Type											●																											
Uncured Properties	Components		RTV662(A) RTV662(B)		RTV668(A) RTV668(B)		RTV664(A) RTV664(B)		RTV664-JA RTV664-J(B)		TSE3466(A) TSE3466(B)		TSE3402(A) TSE3402(B)		TSE3457T(A) TSE3457T(C)		TSE3480T(A) TSE3480(C)		TSE3477T(A) TSE3477T(C)		TSE3450(A) TSE3450(B)		TSE3455T(A) TSE3455T(B)		TSE3488T(A) TSE3488T(F)		TSE3453(A) TSE3453(B)		TSE3453T(A) TSE3453T(B)		YE5626(A) YE5626(B)		TSE3456T(A) TSE3456(C)		TSE3475T(A) TSE3475(C)		TSE3476T(A) TSE3476T(C)	
	Appearance		Beige Blue		Beige Green		Beige Blue		Beige Blue		Translucent Translucent		Light Blue Blue		Translucent Translucent		Translucent Translucent		Translucent Translucent		Translucent Translucent		Translucent Translucent		White Blue		Translucent Translucent		Translucent Translucent		Translucent Translucent		Translucent Translucent		Translucent Translucent		Translucent Translucent	
	Viscosity (23 °C) Pa·s		150 5		151 3.8		153 6		150 -		55 0.3		130 1.2		56 2.5		55 0.5		62 3.0		70 1.5		45 1.5		90 0.5		60 3		50 2.3		60 1.0		88 3		68 1.0		70 1.4	
	Mixing Ratio (by weight)		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1		10 : 1	
	Viscosity (mixed) (23 °C) Pa·s		137		137		120		139		40		118		42		35		52		48		40		50		45		42		48		50		42		48	
	Pot Life (23 °C) h		5		2.5		3		2		1.5		2		1.5		1		1		2		1.5		3		2		1		1.5		1		1		1.5	
	Demold Time (23 °C) h		24		24		18		24		24		24		24		24		24		24		24		72		24		24		24		24		24		24	
Cured Properties	Appearance		Blue		Green		Blue		Blue		Translucent		Light Blue		Translucent		Translucent		Translucent		Translucent		Translucent		Light Blue		Translucent		Translucent		Translucent		Translucent		Translucent			
	Specific Gravity (23 °C)		1.26		1.26		1.26		1.27		1.10		1.25		1.10		1.10		1.02		1.10		1.08		1.10		1.09		1.09		1.09		1.09		1.08			
	Hardness		68		62		62		60		60		60		47		38		45		45		41		40		40		40		39		37		37			
	Tensile Strength MPa (psi)		7.0 (1015)		7.1 (1030)		6.4 (930)		5.4 (785)		7.4 (1075)		5.4 (785)		6.7 (970)		6.0 (870)		6.3 (915)		4.5 (650)		6.4 (930)		6.6 (960)		6.4 (930)		6.4 (930)		6.0 (870)		6.9 (1000)		5.7 (825)		6.0 (870)	
	Elongation %		235		240		245		240		350		220		350		400		320		350		360		400		400		400		420		420		400		380	
	Tear Strength <sup>(1)</sup> N/mm (ppf)		24 (137)		17 (100)		21 (122)		17 (100)		16 (90)		17 (100)		29 (165)		20 (114)		34 (194)		10 (57)		20 (114)		28 (160)		25 (142)		25 (142)		25 (142)		25 (142)		29 (165)		26 (148)	
Linear Shrinkage (23 °C, 24h) %		<0.2		<0.2		<0.2		<0.2		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1		<0.1				
Packaging	1.0 lb. (454g) kit		●		●																																	
	11 lbs. (5kg) kit				●		●																															
	44 lbs. (20kg) kit		●		●		●																															
	495 lbs. (225kg) kit		●		●		●																															
	100g bottle										●		●		●		●		●		●		●		●		●		●		●		●		●			
	600g bottle										●		●		●		●		●		●		●		●		●		●		●		●		●			
	1kg can										●		●		●		●		●		●		●		●		●		●		●		●		●			
	1.8kg can										●		●		●		●		●		●		●		●		●		●		●		●		●			
	10kg pail										●		●		●		●		●		●		●		●		●		●		●		●		●			
	18kg pail										●		●		●		●		●		●		●		●		●		●		●		●		●			
20kg pail										●		●		●		●		●		●		●		●		●		●		●		●		●				
180kg drum										●		●		●		●		●		●		●		●		●		●		●		●		●				
200kg drum										●		●		●		●		●		●		●		●		●		●		●		●		●				
Catalyst Alternatives												TSE3457(D) (machine mixing)		TSE3477(D) (machine mixing)		TSE3488T (E) (fast cure)		TSE3453T (D) (machine mixing)		TSE3456 (D) (machine mixing)		TSE3475 (D) (machine mixing)		TSE3476 (D) (machine mixing)														

(1) Cresent method  
Typical properties are average data and are not to be used as or to develop specifications.

## Cure Inhibition

Cure inhibition may occur with addition cure mold-making silicone, depending on the materials that come into contact with the silicone during cure. Surfaces containing water, sulphur, nitrogen compounds, organic metal compounds or phosphate compounds may inhibit cure.

Cure inhibition is characterized by a gummy or sticky appearance of the silicone at the interface between the silicone and the offending substrate. Inhibition can be prevented by application of a barrier coat, cleaning of the offending material prior to application of silicone, or selection of a condensation cure mold-making grade.

Availability <sup>(1)</sup>	Japan	Korea	China	US	Europe
RTV662	●	●	●	●	
RTV668	●	●	●	●	
RTV664	●			●	
RTV664-J	●	●	●		●
TSE3466	●	●	●	●	●
TSE3402	●	●	●	●	●
TSE3457T	●	●	●	●	●
TSE3477T	●	●	●	●	●
TSE3450	●	●	●	●	●
TSE3455T	●	●	●	●	●
TSE3488T	●	●	●	●	●
TSE3453	●	●	●	●	●
TSE3453T	●	●	●	●	●
YE5626	●	●	●	●	●
TSE3456T	●	●	●	●	●
TSE3475T	●	●	●	●	●
TSE3476T	●	●	●	●	●

(1) Contact a Momentive Performance Materials sales representative for availability in regions not listed.

# Condensation Cure Product Details

Properties	High Hardness				Moderate		Low Hardness													
	TSE3502		TSE350		TSE3504		RTV430		TSE3562		RTV426		RTV7888-20		TSE3478T		RTV421			
Features and Benefits	General purpose material with low viscosity and good release properties.		General purpose material with low viscosity and good release properties.		General purpose material with low viscosity and good release properties. Fast demold performance.		High tear strength, dimensional stability and thermal resistance.		High tear strength and material durability.		High tear strength material, with fast demold performance.		High tear strength.		High tear strength.		High tear strength. Good material flexibility. Fast demold performance.			
Uncured Properties	Components		TSE3502	CE62	TSE350	CE62	TSE3504	CE62	RTV430	Beta 5	TSE3562(A)	TSE3562(B)	RTV426	Beta 26	RTV7888-20	Beta 16	RTV421	Beta 16		
Appearance	White		Red		White		Red		White		Green		Beige		Green		White		Red	
Viscosity (23 °C)	Pa-s		20	–	12	–	10	–	55	0.05	45	–	40	0.021	42	0.03	–	–	40	0.03
Mixing Ratio (by weight)	100 : 0.5		100 : 0.5		100 : 0.5		10 : 1		10 : 1		10 : 0.5		10 : 1		–		–		10 : 1	
Viscosity (mixed) (23 °C)	Pa-s		18	–	10	–	10	–	47	–	40	–	35	–	30	–	–	–	29	–
Pot Life (23 °C)	h		1	–	1	–	0.5	–	3	–	1	–	2	–	1.5	–	–	–	1.5	–
Demold Time (23 °C)	h		24	–	24	–	8	–	12	–	24	–	4.6	–	24	–	–	–	12	–
Cured Properties	Appearance		Stone White		Stone White		White		Pink		Light Green		Green		Pink		–		Pink	
Specific Gravity (23 °C)	1.48		1.18		1.22		1.09		1.09		1.11		1.22		–		–		1.23	
Hardness	60		47		40		30		28		25		20		–		–		18	
Tensile Strength	MPa (psi)		4.9 (710)	–	2.5 (365)	–	2.5 (365)	–	3.1 (450)	–	4.2 (610)	–	3.3 (485)	–	3.4 (500)	–	–	–	3.6 (530)	–
Elongation	%		130	–	170	–	170	–	300	–	400	–	310	–	350	–	–	–	400	–
Tear Strength <sup>(1)</sup>	N/mm (ppi)		3 (17)	–	3 (17)	–	3 (17)	–	23 (130)	–	20 (114)	–	24 (137)	–	23 (130)	–	–	–	23 (130)	–
Linear Shrinkage (23 °C, 24h)	%		<0.1	–	<0.1	–	<0.1	–	<0.5	–	<0.3	–	<0.5	–	<0.14	–	–	–	<0.2	–
Packaging	10g bottle		•	–	•	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–
100g bottle	•		•	–	•	–	•	–	–	–	•	–	–	–	–	–	–	–	–	–
1 pint (568ml) bottle	–		–	–	–	–	–	–	–	–	–	–	•	–	•	–	–	–	–	–
900g can	–		–	–	–	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–
1kg can	•		•	–	•	–	•	–	–	–	•	–	–	–	–	–	–	–	–	–
2 quart (2.3ltr) bottle	–		–	–	–	–	–	–	•	–	–	–	•	–	•	–	–	–	•	–
2 quart (2.3ltr) can	–		–	–	–	–	–	–	–	–	–	–	–	–	•	–	–	–	•	–
1 gal (3.8ltr) pail	–		–	–	–	–	–	–	•	–	–	–	•	–	•	–	–	–	•	–
18kg pail	–		–	–	–	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–
5 gal (19ltr) pail	–		–	–	–	–	–	–	•	–	–	–	•	–	•	–	–	–	•	–
20 kg pail	•		•	–	•	–	•	–	–	–	–	–	–	–	–	–	–	–	–	–
6 gal (22.8ltr) pail	–		–	–	–	–	–	–	–	–	–	–	–	–	•	–	–	–	•	–
180kg drum	–		–	–	–	–	–	–	–	–	•	–	–	–	–	–	–	–	–	–
55 gal (209ltr) drum	–		–	–	–	–	–	–	•	–	–	–	•	–	•	–	–	–	•	–
Catalyst Alternatives	CE60 (red) Fast cure		CE60 (red) Fast cure		CE60 (red) Fast cure		Beta 11 (blue) High-flexibility		TSE3562(F) Fast demolding		–		Beta 17 (clear) Fast demolding		–		–		–	
	CE61 (red-brown) Slow cure		CE61 (red-brown) Slow cure		CE61 (red-brown) Slow cure		–		–		–		Beta 18 (red) Low hardness		–		–		–	

(1) Cresent method  
Typical properties are average data and are not to be used as or to develop specifications.

Availability <sup>(1)</sup>	Japan	Korea	China	US	Europe
TSE3502	•	•	•		•
TSE350	•	•	•		•
TSE3504	•	•	•		•
RTV430	•	•	•	•	•
TSE3562	•	•	•		•
RTV426	•	•	•	•	•
RTV7888-20	•	•	•	•	•
RTV421	•	•	•	•	•

(1) Contact a Momentive Performance Materials sales representative for availability in regions not listed.

# Pad-Printing Grades (Addition Cure)

Properties	High Hardness					
	RTV8001		RTV8335			
Features and Benefits	Low viscosity, high tear strength.		High tear strength, low shrinkage.			
Uncured Properties	Components		Base	Catalyst	Base	Catalyst
Appearance	Translucent		Translucent	Translucent	Translucent	Translucent
Viscosity (23 °C)	Pa-s		23	1	70	1.1
Mixing Ratio (by weight)	–		9 : 1	–	9 : 1	–
Viscosity (mixed) (23 °C)	Pa-s		16	–	34	–
Pot Life (23 °C)	h		1	–	1.5	–
Demold Time (23 °C)	h		24	–	24	–
Cured Properties	Appearance		Translucent		Translucent	
Specific Gravity (23 °C)	1.09		1.08		–	
Hardness	30		30		–	
Tensile Strength	MPa (psi)		5.7 (825)	–	6.0 (870)	–
Elongation	%		570	–	500	–
Tear Strength <sup>(1)</sup>	N/mm (ppi)		30 (170)	–	30 (170)	–
Linear Shrinkage (23 °C, 24h)	%		–	–	<0.1	–
Pkg	20kg (44 lbs.) kit		•	–	•	–

Typical properties are average data and are not to be used as or to develop specifications.

Availability <sup>(1)</sup>	Japan	Korea	China	US	Europe
RTV8001	•	•	•		•
RTV8335	•	•	•		•

(1) Contact a Momentive Performance Materials sales representative for availability in regions not listed.

# Accessory Products

## Inhibitors

Inhibitors serve to increase the working time of mixed mold-making silicones by delaying the rate of cure. However, high inhibitor concentrations can affect post-cure material properties, making a preliminary test essential.

Inhibitor Grade	ME75	ME70
Compatible Silicone Type	Addition Cure	Condensation Cure
Appearance	Colorless, Transparent	Colorless, Transparent
Typical Concentration wt%	0.01 - 0.5	0.1 - 1.0
Pkg	100g bottle	•
	1kg bottle	•

## Thinners

Thinners are dilution additives that reduce the viscosity of mold-making silicones and lower post-cure hardness and modulus.

Thinner Grade	ME91	ME90	SF97-50
Compatible Silicone Type	Addition Cure	Condensation Cure	All
Appearance	Transparent	Transparent	Transparent
Viscosity (25 °C)	3.0 (Pa-s)	—	50 (cstk)
Typical Concentration wt%	0.01 - 20.0	0.1 - 20.0	~ 7.0
Pkg	1.0 lb. (454g) bottle		•
	1kg bottle	•	•

## Thixotropic Agent

SF1188A can be used as a thixotropic agent with condensation cure products, and is typically used to allow the mold-making silicone to be applied to vertical surfaces.

Thixotropic Agent	SF1188A
Color	Clear to straw
Viscosity (25 °C) cstk	800-1400
Specific Gravity (25 °C)	1.04
Typical Concentration wt%	~ 3.0

## Color Master

Color Master Grade	ME50-B	ME50-G	ME50-M	ME50-R2	ME50-Y
Color	Black	Gray	Blue	Red Brown	Yellow
Viscosity (25 °C) Pa-s	200	150	800	250	800
Typical Concentration wt%	2.0	2.0	2.0	2.0	2.0
Pkg	1 kg can	•	•	•	•

## Performance Examples

ME75 (Addition Cure)	Ratio 1	Ratio 2	Ratio 3
YE5626 (A) wt	100	100	100
YE5626 (B) wt	10	10	10
ME75 wt	0	0.2	0.4
Viscosity (120 min. at 25 °C) Pa-s	120	85	65

ME70 (Condensation Cure)	Ratio 1	Ratio 2	Ratio 3
TSE3562 (A) wt	100	100	100
TSE3562 (B) wt	10	10	10
ME70 wt	0	0.5	1.0
Viscosity (60 min. at 25 °C) Pa-s	100	90	55
Viscosity (70 min. at 25 °C) Pa-s	190	125	60

## Performance Example

ME90 (Condensation Cure)	Ratio 1	Ratio 2	Ratio 3	Ratio 4
TSE3562 (A) wt	100	100	100	100
TSE3562 (B) wt	10	10	10	10
ME90 wt	0	5	10	20
Viscosity (23 °C) Pa-s	40	32	24	15
Hardness	30	27	24	20
Tensile Strength MPa (psi)	4.2 (610)	4.0 (580)	3.4 (495)	2.9 (420)
Elongation %	400	420	390	390
Tear Strength N/mm (ppi)	20 (114)	20 (114)	4 (23)	3 (17)

## Model Sealer / Barrier-Coat

Model sealers help minimize cure inhibition of addition cure mold-making material, and is applied as a thin layer (0.01 - 0.02mm) to the master containing the offending substrate. Model sealers can also be used as a parting agent to aid mold release in addition cure two-part molds.

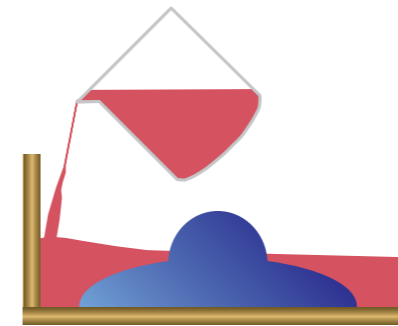
Model Sealer	SS4171P
Color	Blue
Specific Gravity (25 °C)	0.84
Non-Volatile Content %	14
Dry Time min	30
Solvents	Acetone, Isopropanol, Xylene

# Molding Processes

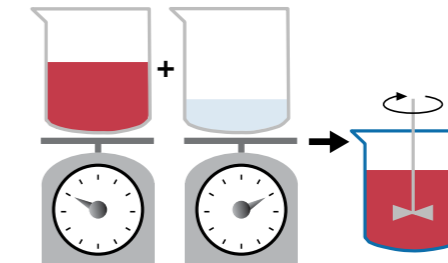
## Seamless Simple Mold



**Step 1:** Place the master model on the mold board, and enclose on all four sides with a frame. Clay may be applied on the bottom of the master to securely attach it to the mold board.



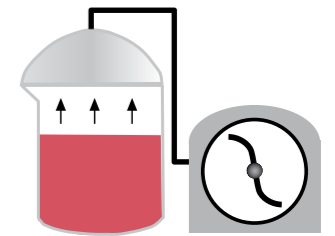
**Step 4:** Begin pouring the material, starting first at a low point in the mold. Allow the silicone to cure for the specified time.



**Step 2:** Measure the base material and catalyst by weight as specified for the silicone grade selected. Thoroughly mix the components.



**Step 5:** After the silicone has cured, remove the mold walls, and gently release the mold from the mold board. Release the master model from the silicone mold, and remove any flash that may have developed on the edges of the mold.

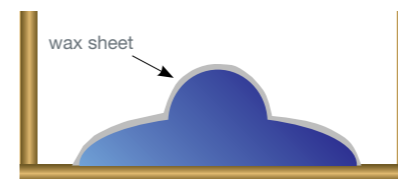


**Step 3:** Vacuum-degas the silicone mixture to remove air that became entrapped during mixing. The mixture will rise while degassing, and therefore, a container width of adequate size (4 to 5 times) is required.



**Step 6:** Prepare the casting resin as specified by the manufacturer, pour into the silicone mold, and allow to cure.

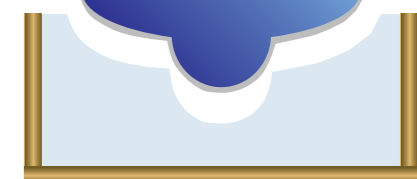
## Seamless Lost Wax Mold



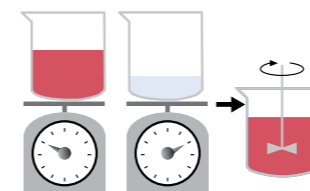
**Step 1:** Place the master model on the mold board, and enclose on all four sides with a frame. Apply a wax sheet on the master model surface (thickness 0.5-1.0cm). Avoid using wax containing sulfur.



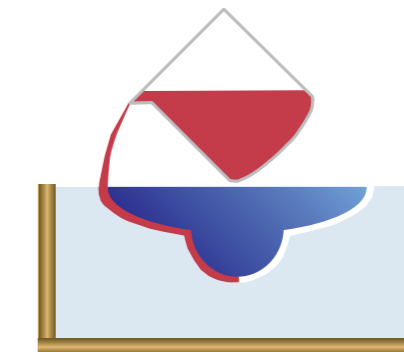
**Step 2:** Pour a base material (plaster, polyester, etc.) and allow to harden.



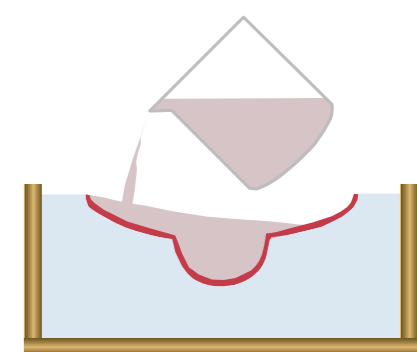
**Step 3:** Flip the mold and remove the wax layer and master model.



**Step 4:** Measure the base material and catalyst by weight as specified for the grade selected. Mix the components thoroughly. Vacuum-degas the silicone mixture to remove air that became entrapped during mixing. The mixture will rise while degassing, and therefore, a container of adequate size (4 to 5 times) is required.



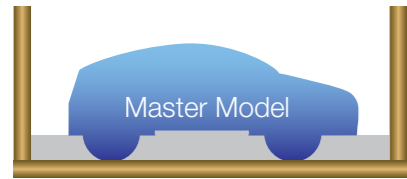
**Step 5:** Secure the master model to the mold so the base is flush with the base material. Pour silicone into the cavity between the base and master model. Cure the silicone according to the specified conditions.



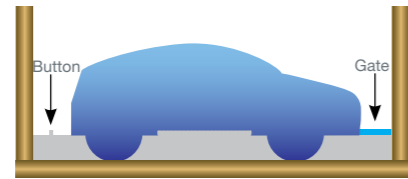
**Step 6:** Remove the master model. Prepare the casting resin as specified by the manufacturer, pour into the silicone mold, and allow to cure.

## Mass-Cast Seam Line Mold

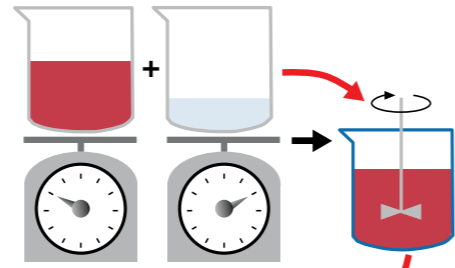
Mass casting a 3-dimensional part that does not have a flat side involves the creation of a part line in a split mold configuration. A split mold avoids “locking” the master model inside the silicone mold by pouring and curing the silicone mold-making material in two steps. The ideal location for placing a part line depends upon the shape of the master part.



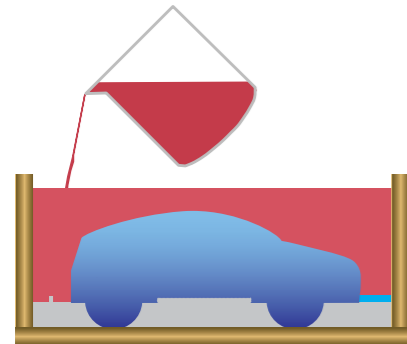
**Step 1:** Place the master model in the mold frame, and 2 parting line. The flat surface can be created by either milling a cavity in the mold board to the appropriate depth and shape, or by embedding the bottom of the master in clay.



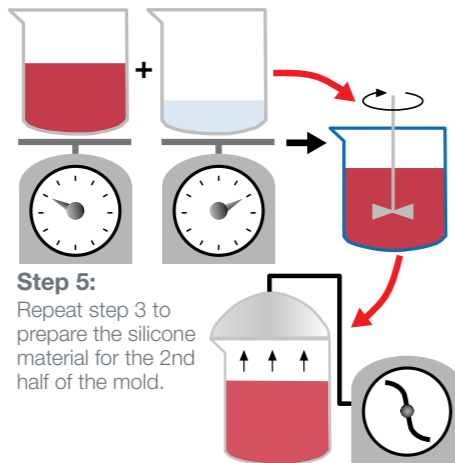
**Step 2:** Use a non-reactive and easy to use material, such as pattern wax, to create button indentations that will be used to allow the 2 halves to mechanically inter-lock and align. Using similar material, create a gate from the model to the frame. The gate will later be used to pour casting resin into the mold.



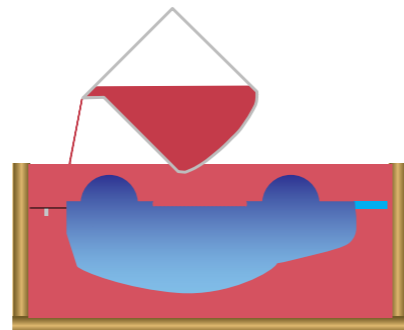
**Step 3:** Measure the base material and catalyst by weight as specified for the grade selected. Mix the components thoroughly. Vacuum-degas the silicone mixture to remove air that became entrapped during mixing. The mixture will rise while degassing, and therefore, a container of adequate size (4 to 5 times) is required.



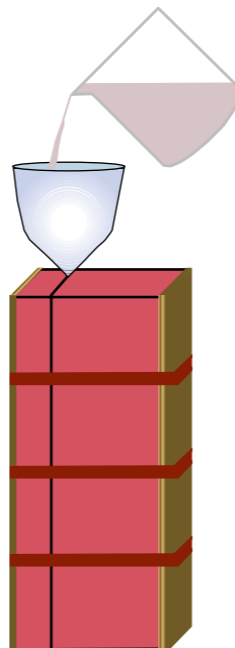
**Step 4:** Pour the silicone mixture, and allow to fully cure as specified. It is advisable to vacuum-degas once again after pouring, as some air will enter the silicone while pouring. After the silicone has fully cured, remove the frame from the base, and flip the mold to reveal the underside of the mold. Clean the parting line by removing clay that was used to create the parting line and any flash that developed. Also remove the wax material for the alignment mechanism.



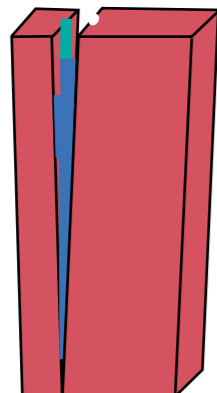
**Step 5:** Repeat step 3 to prepare the silicone material for the 2nd half of the mold.



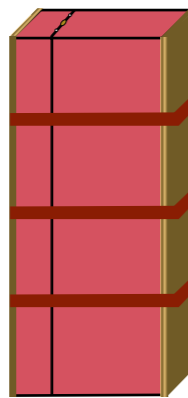
**Step 6:** Pour the mixed and degassed silicone to create the 2nd half. It is advisable to vacuum-degas once again after pouring, as some air will enter the silicone while pouring. Allow to fully cure as specified.



**Step 7:** Remove the frame and base, and gently pull apart the 2 halves to expose the model. Remove the model and clean as necessary. If air vents were not cast-in, cut vents into one of the halves.



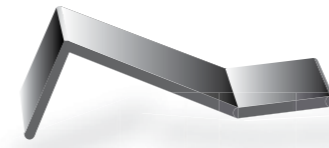
**Step 8:** Place the two halves together, using the alignment mechanism for precise positioning. Place boards on either side to avoid excess localization of pressure, and securely tape the mold.



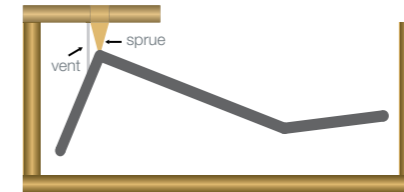
**Step 9:** Prepare the casting resin as specified by the manufacturer, pour into the silicone mold via the gate, and allow to cure.

## Mass-Cast Seam Line Cut Mold

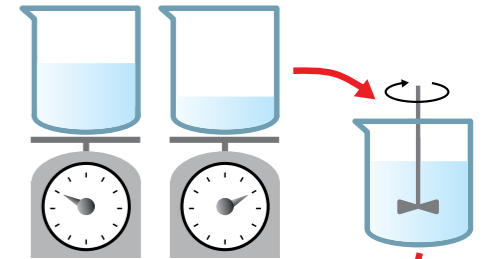
Mass casting a 3-dimensional part can also be accomplished by a single pour mold whose parting line is cut, rather than being created through two pouring processes. Parts that have a natural parting line that is conducive to cutting, are candidates for this process. The benefit of a cut mold is the reduction in cure time associated with the elimination of a 2nd pouring and curing process. Optical clarity of translucent or transparent molding making grades aids the cutting process.



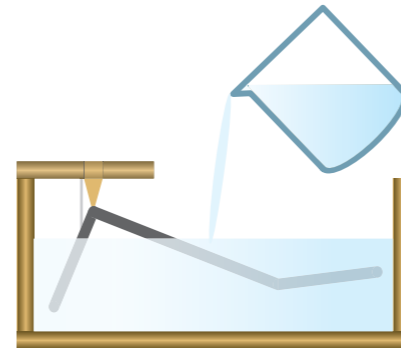
**Step 1:** Parts with a prominent natural parting line are candidates for mass-molding with a seam line and cut process. Tape may be applied to the edges to create a parting line away from the model, and aid the cutting process later.



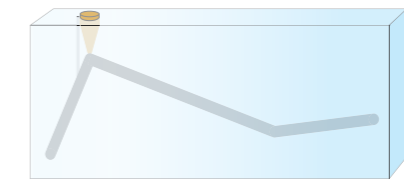
**Step 2:** Enclose the part in a frame. The part can be suspended by attaching a sprue, which will also serve as the gate for pouring resin in the completed mold. Cast air vents can be created by attaching physical connections such as wires, which will also help to stabilize the part while pouring.



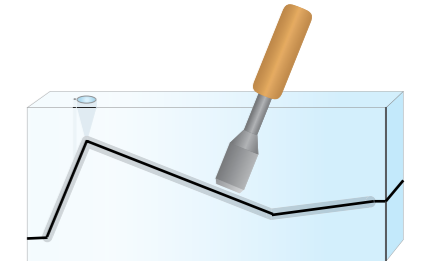
**Step 3:** Measure the base material and catalyst by weight as specified for the grade selected. Mix the components thoroughly. Vacuum-degas the silicone mixture to remove air that became entrapped during mixing. The mixture will rise while degassing, and therefore, a container of adequate size (4 to 5 times) is required.



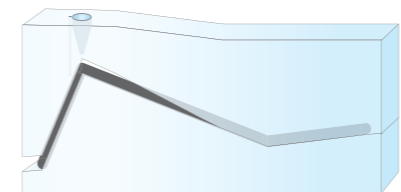
**Step 4:** Begin pouring the material, starting first at a low point in the mold. It is advisable to vacuum-degas once again after pouring, as some air will enter the silicone while pouring. Allow the silicone to cure for the specified time and conditions.



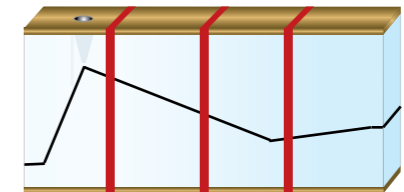
**Step 5:** After the silicone has cured, remove the frame and supporting structure. Remove any flash that may have developed along the edges.



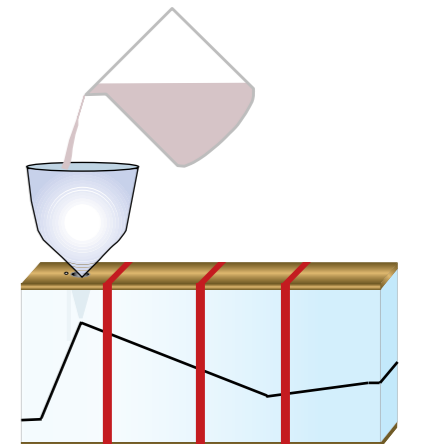
**Step 6:** Use a knife to cut along the parting line. It is preferable that the cut is made in 2 to 3 passes, rather than attempting to cut to the part in a single cut. The pattern of the cut will create a natural alignment that will help when preparing the two halves for pouring resin.



**Step 7:** Gently separate the 2 halves to expose the part. Remove the part, the sprue, cast-in air vent material, and any flash that may have developed around the gate and air vents.



**Step 8:** Place the two halves together, using the cut parting line for alignment. Place boards on either side to avoid excess localization of pressure, and securely tape the mold.



**Step 9:** Prepare the casting resin as specified by the manufacturer, pour into the silicone mold via the gate, and allow to cure.

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