



Silicone solutions for General Molding

Bluestar Silicones. Delivering Your Potential.

BLUESTAR
SILICONES

Bluestar Silicones RTV-2 for general molding is about high fidelity and reliable reproduction of chosen objects and multiple copies using the same silicone mold.

Bluestar Silicones offers a broad range of hardnesses and curing kinetics meet the high requirements of moldmaking. Two technologies are proposed:

■ **Polycondensation** curing grades, historically known for classical moldmaking, are at the highest level of development aiming at the longest resistance (mechanical/chemical).

When selecting the suited Bluesil™ catalyst the choice can be made according to the used reproduction material but also the best suited curing time.

		BLUESIL™ RTV													
		RTV 3306	RTV 3310	RTV 3315	RTV 3318	RTV 3318 SPU	RTV 3322	RTV 3325	RTV 3325P	RTV 3327P	RTV 3330	RTV 3330 SPU	RTV 3335 SPU		
Kinetic	Aspect	Viscous liquid						Putty		Viscous liquid					
	Color	White	White	White	White	Beige	White	White	Gray	Blue	White	White	White		
	Viscosity	20K	25K	17K	35K	35K	35K	35K	paste	paste	35K	35K	50K		
	Shore A	5	10	15	18	18	22	25	25	27	30	30	35		
Polycondensation curing	BLUESIL™ CATALYST (5% add-on to RTV)														
	Catalyst (color)	Main Feature													
	Cata 24H (Trans)	Multipurpose	PL	120	120	120	120	120	120	120			120	120	120
			DT	24	24	24	24	24	24	24			24	24	24
	Cata 6H (Trans)	Multipurpose fast curing	PL	40	40	40	40	40	40	40			40	40	40
			DT	6	6	6	6	6	6	6			6	6	6
	Cata 2H (Red)	Multipurpose very fast curing	PL	15	15	15	20	15	20	20			15	15	15
			DT	2	2	2	2	2	2			2	2	2	
	Cata 83# (Yellow)	Paste	PL								90	80			
			DT								24	24			
	Cata SPE (Yellowish)	Resistance to PES	PL	120	90	120	120	120	120	120			120	120	120
			DT	24	24	24	24	24	24	24			24	24	24
	Cata SPU (Yellowish)	Resistance to PUR	PL					150						150	150
			DT					24						24	24
Cata P13 (Yellowish)	Anti-reversion Anti-ageing	PL	120	120	120	120	120	120	120	120	120	120	120	120	
		DT	24	24	24	24	24	24	24	24	24	24	24	24	

PL = Pot-Life [min] DT = Demolding Time [h]

■ **Polyaddition** curing grades complete the range where high performance is required.

		BLUESIL™ product	Viscosity [mPas] A/B	Colour Once Mixed	Pot-life [min]	Demol. Time [h]	ShA	Tear Res. [KN/m]	Tensile Res. [MPa]	Elong. at Break [%]
Polyaddition curing		RTV 3512NB ⁽¹⁾	9.000/ 5.000	White	75	6	12	20	4.5	800
		RTV 3428	25.000/ 8.000	White, Pink, Translucent	60	16	28	20	7.5	600
		RTV 3542 HV ⁽²⁾	23.000/ 23.000	Colorless (Blue)	10	1	42	10	4.5	250
		RTV 3460	95.000/ 5.000	Gray	210	16	60	25	6.0	230

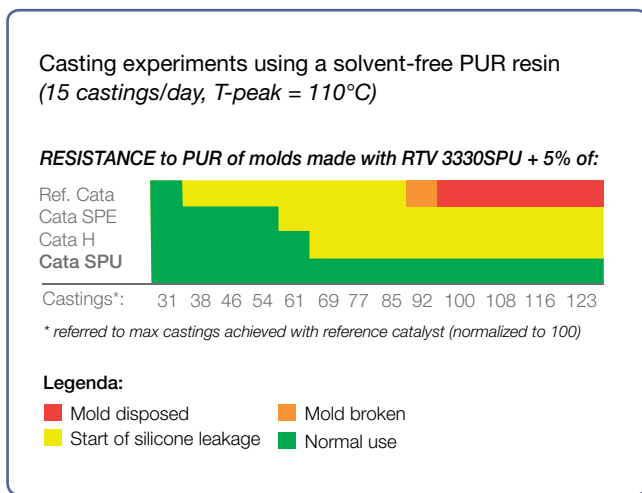
(1) NB = Non Bleeding
(2) HV = High Viscosity

■ Polyurethane Casting

Bluestar Silicones has very efficient polycondensation grades with high resistance to polyurethane resins.

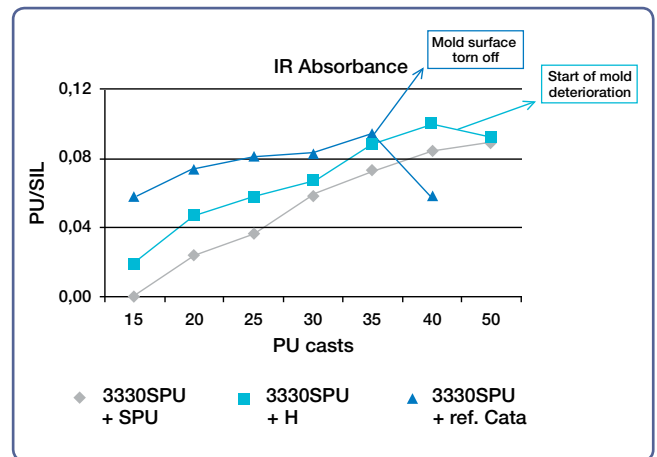
Comparative trials showed that Cata SPU produces molds that resist considerably longer to polyurethane resins than molds made with standard catalysts.

Benchmark vs standard catalysts



The lower PU-signal of molds **produced with Cata SPU** agrees with casting experiments demonstrating **longer resistance of SPU molds.**

Infrared analysis of molds cast-after-cast: intensity of PU band over silicone band as measure of PU diffusion into the molds.



RTV 33--SPU range offers the versatility of using standard catalysts & Cata SPU

In a moldmaking workshop, it is ideal to have one high performance silicone and a set of catalysts with different properties: need a mold in an eyeshut to have a quick idea? **RTV + Cata 2H.**
 Instead of the usual polyurethane a new customer requires polyester manufactures? **RTV + Cata SPE.**

■ Product Selector Guide

	BLUESIL™ RTV	3512NB A&B	3428 A&B	3542HV A&B	3460 A&B	3318 SPU	3330 SPU	3335 SPU	3325 3322	3255	any 33xx
Cat							SPU		PES	24H	P13
Curing		PA	PA	PA	PA		PC		PC	PC	PC
casting material	PU			✓	✓ (foam)		✓				
	PES								✓		
	Epoxy	✓		✓							
	Plaster	✓	✓	✓	✓		✓		✓	✓	✓
	Concrete	✓	✓								
	Wax	✓	✓	✓	✓		✓		✓	✓	✓
	Food		✓								
	Dimensional stability	✓	✓	✓	✓						
Long term storage	✓	✓	✓	✓						✓	
Max service-T		200°C	200°C	200°C	200°C		60°C		60°C	150°C	60°C



How would you like to replicate?

- Artificial wood** ▶ Dedicated grades for polyurethane casting
- Artificial stone** ▶ Architectural molding with plaster casting
- Metal manufact** ▶ Temperature resistant RTV-2 solutions
- Fiber-reinforced resin** ▶ Special catalysts (SPE/SPU)
- Wax** ▶ General purpose grades

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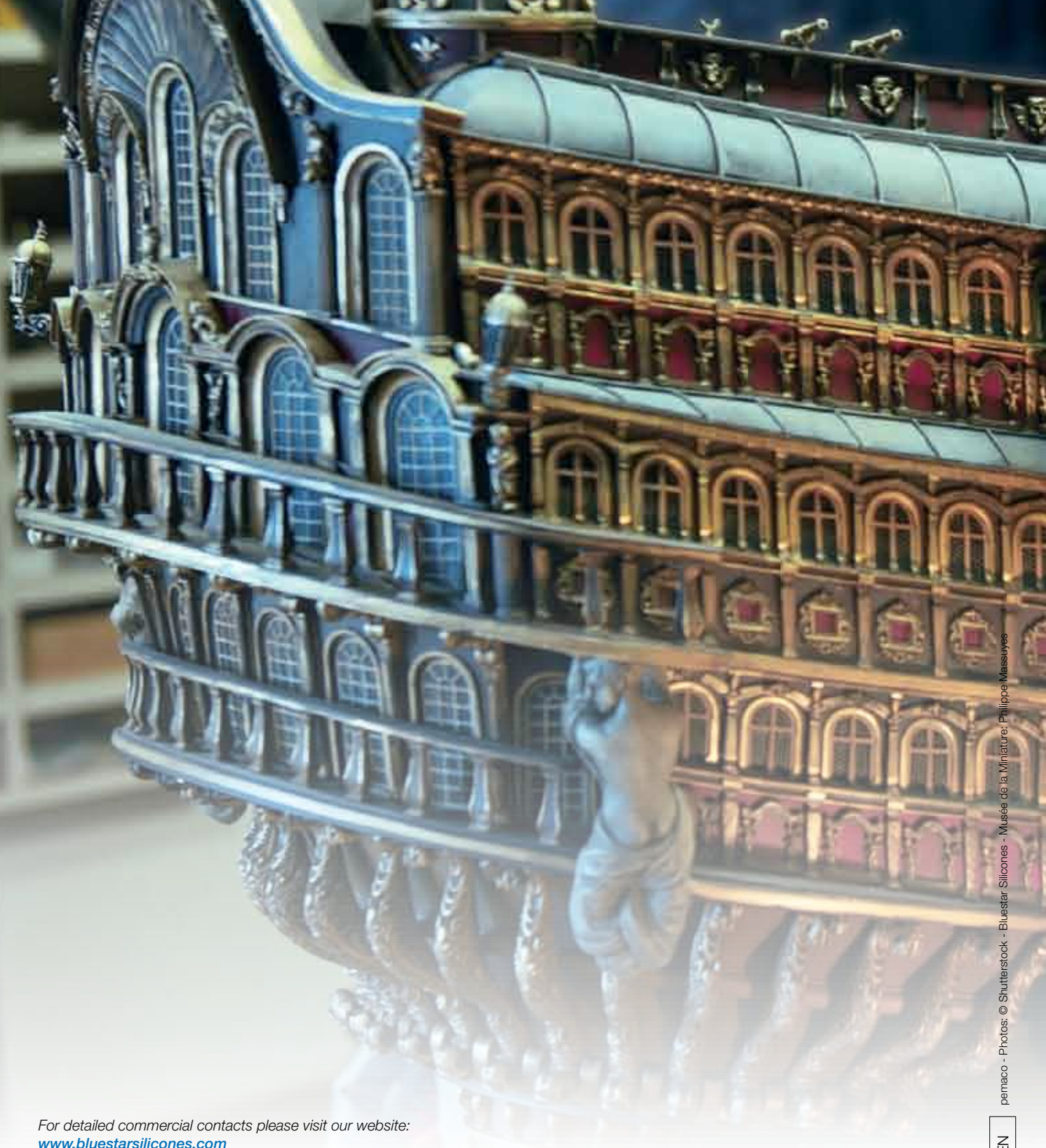
If the question is “how many copies”, the answer is **BLUESIL™ Moldmaking Solutions.**

Range of additives for polycondensation curing

Additive	Feature	Usage level	Special notice
Additive PC-Thixo	Imparts thixotropic behavior without changing pot-life	0.01 ÷ 0.1 %	A/ To be used in addition to a catalyst B/ Do not use with 3318SPU, 3330SPU, 3335SPU
PC-accelerator	Shortens pot-life & demolding time	0.1 ÷ 0.5 %	To be used in addition to the catalyst
PC-retarder	Increases pot-life	0.1 ÷ 0.8 %	To be used in addition to the catalyst
Primer PM820	Adhesion promoter on aluminum, steel, wood, artificial resins	Thin layer on surface	Works also for adhesion on cured polyaddition silicone

Range of additives for polyaddition curing

Additive	Feature	Usage in the final mix	Special notice
Additive PA Thixo	Imparts thixotropic behavior	0.1 ÷ 0.5 %	Do not use with pad printing range
Accelerator PA39	Shortens pot-life & demolding time	0.05 ÷ 0.5 %	To be added to Pt-containing part
Retarder PA40	Increases pot-life	0.1 ÷ 2 %	To be added to part not containing Pt
Primer PM820 Primer PM811 A&B	Adhesion promoters on steel, aluminum, wood, artificial resins	Thin layer on surface	Adhesion promotion works as result of both primers: 1st treatment w. PM820, followed by PM811 A&B
Primer PS810E	Adhesion promoter on cured silicone	Thin layer on surface	Does not work for adhesion on polycondensation cured silicones
CAF 3	Glue for cured silicones	As needed	For both polyaddition and polycondensation



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www.bluestarsilicones.com

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