BLUESIL RTV 3428 A&B PINK.WHITE.TRANS

Description

The **BLUESIL RTV 3428 A&B** is a two component silicone elastomer which cures at room temperature by a polyaddition reaction. This reaction can be accelerated by heat.

Examples of applications

- Production of flexible moulds with excellent details reproduction, mechanical resistance and duration.
- Production of thermal expansion formers for composite materials (the aeronautic industry, boat-building, etc.).

Key benefits

- Easy processing and curing.
- Outstanding tensile and tear strength.
- Low linear shrinkage (when crosslinked at room temperature).
- PART B: different colours available (see characteristics).

Typical properties

1. Characteristics of the non cured product

Properties	BLUESIL RTV 3428 A	BLUESIL RTV 3428 B
Appearance	Viscous liquid	
Color	Colorless	Pink, White, Colorless
Specific gravity *(At 23°C, g/cm3, approx.)*	1.1	
Viscosity *(At 23°C, mPa.s, approx.)*	25 000	8 000

2. Polymerization

BLUESIL RTV 3428 A: 100 parts
BLUESIL RTV 3428 B: 10 parts

Properties	BLUESIL RTV 3428 A&B
Pot life *(At 23°C , hours, approx.)*	1
Demoulding time *(At 23°C, hours, approx.)*	16

Note: heat-accelerated crosslinking does not affect the properties of **BLUESIL RTV 3428 A&B**. However, dimensional changes do occur that should be kept into account.

3. Characteristics of the cross linked product
Measured after curing 24 hours at 23°C

Properties	BLUESIL RTV 3428 A&B
Hardness *(Shore A, on a 6 mm thick specimen, approx.)*	28
Tensile strength at break *(MPa, approx)*	7.5
Elongation at break *(%, approx.)*	600
Tear strength *(KN/m, approx.)*	20
Linear shrinkage *(%, 7 days after curing at 23°C, approx.)*	0.1

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Please note: The typical properties are not intended for use in preparing specifications. Please contact our local Sales Department for assistance in writing specifications.

Instruction of use

Remix each of the two components (part A and B) every time before using.

1. Mixing of the two components

Add 100 parts of **BLUESIL RTV 3428 A** to 10 parts of **BLUESIL RTV 3428 B**. The two components may be intimately mixed either by hand or using a low-speed electric or pneumatic mixer to minimize the introduction of air into the mixture.

The viscosity of **BLUESIL RTV 3428 A&B** can be reduced by using BLUESIL FLD 47V50, added up to 10% with respect to **BLUESIL RTV 3428 A**. This will improve flowing of the mixed product without causing significant changes of the mechanical properties of the elastomer.

2. Degassing

After mixing base and catalyst, it is recommended to eliminate entrapped air.
If the mixing is done with the help of a machine and a static mixer, both parts are degassed before mixing.

BLUESIL RTV 3428 A&B is degassed under a vacuum of 30 to 50 mbar. The degassing of the mixed product or of the two separated parts occurs under a vacuum of 30 to 50 mbar. Under vacuum, the product expands 3 to 4 times its initial volume and forms bubbles on its surface. These bubbles will disappear gradually and the mixture will sink back down to its initial volume within 5 minutes. Release the vacuum and repeat the operation a few minutes later.

Remark: release the vacuum several times improves the degassing. For easier degassing only fill a recipient to 1/3 of its height.

The product can be casted by gravity or under pressure.

3. Cross linking

The best curing conditions are at 23°C. When using the products at higher temperatures, the pot life is shorter and the setting rate faster. As opposed to this, lower temperatures increase the pot life and decrease the setting rate.

Room temperature curing assures the lowest possible shrinkage, if accelerated cure is desired, mild heat should be preferred. To minimize shrinkage the elastomer should be cured at maximum temperature of 60°C. Higher temperatures might cause higher shrinkage.

At 23°C, the cured silicone can be demoulded after the time indicated as "demolding time" (see § 2.Polymerization). In order to achieve the best possible performance levels from the pads, it is preferable to wait for 24 hours before using them.

Be aware that contact with certain materials can inhibit the curing of this RTV:

- Natural rubbers vulcanized with sulphur.
- Polycondensation RTV catalysed with metal salts.
- PVC stabilizing agents.
- Amine cured epoxies.
- Containing clays.

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	In case of doubts, it is recommended to test the substrate by applying a small quantity of the mixed silicone on a restricted area. Take note that cross contaminations due to improperly cleaned tools or devices is the most frequent cause of inhibition.
Regulation	Please consult your local ELKEM SILICONES sales office.
Limitations	Please consult your local ELKEM SILICONES sales office.

Packaging	• BLUESIL RTV 3428 A is available in
	  ○ Drum of 200 KG (441 LB)
	  ○ Drum of 20 KG (44.1 LB)
	• BLUESIL RTV 3428 B PINK is available in
	  ○ Drum of 20 KG (44.1 LB)
	  ○ Piece of 2 KG (4.41 LB)
	• BLUESIL RTV 3428 B TRANSLUCENT is available in
	  ○ Drum of 20 KG (44.1 LB)
	  ○ Piece of 2 KG (4.41 LB)
	• BLUESIL RTV 3428 B WHITE is available in
	  ○ Drum of 20 KG (44.1 LB)
	  ○ Piece of 2 KG (4.41 LB)

Storage and shelf life	When stored in its original packaging: BLUESIL RTV 3428 A may be stored at temperatures between -20°C / -4°F and 30°C / 86°F for up to 20 months from its date of manufacturing. BLUESIL RTV 3428 B PINK may be stored at temperatures between -20°C / -4°F and 30°C / 86°F for up to 20 months from its date of manufacturing. BLUESIL RTV 3428 B TRANSLUCENT may be stored at temperatures between -20°C / -4°F and 30°C / 86°F for up to 20 months from its date of manufacturing. BLUESIL RTV 3428 B WHITE may be stored at temperatures between -20°C / -4°F and 30°C / 86°F for up to 20 months from its date of manufacturing. Comply with the storage instructions and expiration date marked on the packaging. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.
Safety	Please consult the Safety Data Sheet of: BLUESIL RTV 3428 A, BLUESIL RTV 3428 B PINK, BLUESIL RTV 3428 B TRANSLUCENT and BLUESIL RTV 3428 B WHITE

Visit our website www.elkem.com/silicones/