

# BLUESIL™

## RTV 4082/8 A – RTV 140/8 B

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**Description** **BLUESIL RTV 4082/8 A + RTV 140/8 B** is a two component silicone elastomer that crosslinks at room temperature by polyaddition reaction. The polymerisation can be accelerated by heat.

The silicone components are delivered as two components viscous liquids, which once mixed and cured, transforms into a grey, elastic and resistant material.

Polymerisation occurs without formation of heat.

**Examples of applications** This product is suitable for producing electrotechnical components, e.g. cable terminations.

**Key benefits**

- Curing at room temperature (23°C) even in the absence of air and moisture. The curing characteristics are independent of the thickness of the parts. The polymerisation can be accelerated by heat (up to 150°C).
- Fast mixing and easy processing (10 : 1) due to the good flowability and low viscosity.
- Exceptional mechanical properties combined with a high Shore A hardness.

### Typical properties 1. Characteristics of the non-cured product

<i>Properties</i>	<b>BLUESIL RTV 4082/8 A</b>	<b>BLUESIL RTV 140/8 B</b>
<b>Appearance</b>	Viscous liquid	
<b>Colour</b>	Dark grey	Clear
<b>Viscosity</b> (At 23°C, mPa.s, ISO 3219, approx.)	30 000	100
<b>Specific gravity</b> (gr/cm <sup>3</sup> , approx.)	1.30	0.97

### 2. Polymerization

**BLUESIL RTV 4082/8 A** ..... 100 parts  
**BLUESIL RTV 140/8 B** ..... 10 parts

<i>Properties</i>	<b>BLUESIL RTV 4082/8 A - RTV 140/8 B</b>
<b>Colour</b>	Grey
<b>Pot life</b> (At 23°C, 50% relative humidity, minutes)	120
<b>Demoulding Time</b> (At 23°C, 50% relative humidity, hours)	8

*Remark : Higher temperatures reduce pot life, lower temperature prolong pot life.  
 If curing is accelerated by heat the properties of **BLUESIL RTV 4082/8 A – RTV 140/8 B** are not modified, however dimensional changes do occur during post curing of which must be taken into account.*

**BLUESIL™ RTV 4082/8 A – RTV 140/8 B****Typical properties**  
(cont')**3. Characteristics of the cross linked product**

Measured after curing 24 hours at 23°C

<i>Properties</i>	<b>BLUESIL RTV 4082/8 A - RTV 140/8 B</b>
<b>Shore A Hardness</b> ( <i>Shore A, after 24 h, approx.</i> )	42
<b>Tensile Strength at break</b> ( <i>MPa, approx.</i> )	5
<b>Elongation at break</b> ( <i>%, approx.</i> )	400
<b>Tear strength</b> ( <i>KN/m, approx.</i> )	20

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

**Instructions 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 4082/8 A** to 10 parts of **BLUESIL RTV 140/8 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.

**2. Degassing**

After mixing parts A & B it is recommended to degas the product to eliminate the air introduced in the mixture; if the material is processed using an automatic dosing machine, each of the two parts has been previously degassed and air is not introduced during the mixing.

**BLUESIL RTV 4082/8 – RTV 140/8** is degassed under a 30 to 50 mbar vacuum.

When the vacuum is applied the product expands 3-4 times its initial volume and bubbles form on the surface. Once bubbles disappear the mixture collapses back to its initial volume. To complete degassing simply wait several minutes before releasing the vacuum, the product will then be ready to use.

Releasing the vacuum once or twice during the operation will improve and facilitate gas removal.

A container with a high diameter/height ratio will ease the operation as well.

Pour the degassed material slowly in a steady stream from one edge of the mould so that the material flows evenly over the mould minimizing the entrapment of air bubbles under the flowing rubber.

**BLUESIL™ RTV 4082/8 A – RTV 140/8 B****Instructions of use**  
(cont')**3. Crosslinking**

At room temperature (23°C) **BLUESIL RTV 4082/8 – RTV 140/8** cures in approximately 24 hours, regardless the thickness of the mould. Room temperature curing assures the lowest possible shrinkage, if accelerated cure is desired, mild heat should be preferred.

To minimize shrinkage cure the elastomer at maximum temperature of 60°C for 3-4 hours, higher temperatures will cause higher shrinkage.

Conversely at lower temperature polymerization is much slower, at 20°C 36 hours may be necessary to complete cross-linking.

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.
- Sulphur containing clays.

If doubts exist it is recommendable to run a quick test with a small quantity of material in order to assess compatibility. Take duly note that cross contamination due to not well cleaned tools or devices are frequently the main causes of inhibition. The best way is to use only dedicated gear when processing polyaddition RTVs.

**Packaging**

**BLUESIL RTV 4082/8** is available in 25 kg containers

**BLUESIL RTV 140/8** is available in 2.5 kg pails

**Storage and shelf life**

When stored in their original packaging at a temperature of between –5°C and + 30°C, **BLUESIL RTV 4082/8 A – RTV 140/8** may be stored for up to 12 months from their date of manufacture.

Comply with the storage instructions and expiry date marked on the packaging.

Beyond this date, Bluestar Silicones no longer guarantees that the products meet the sales specifications.

**Safety**

Please consult the Safety Data Sheets of **BLUESIL RTV 4082/8 A – RTV 140/8**.

# BLUESIL™ RTV 4082/8 A – RTV 140/8 B

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