

# Bluesil™ RT FOAM 3241 A&B

October 2017

**Description** **Bluesil™ RT FOAM 3241 A&B** is a two-component silicone foam which cures at room temperature by an addition cure reaction. When the A and B liquid components are thoroughly mixed in a 1:1 ratio, the product expands and cures to a foamed elastomer at room temperature.

**Applications** This product is specifically formulated for the production of printing rollers. Other suggested applications are:

- Automatic installation of gaskets for the automotive and domestic appliance industry
- Insulation of noise and heat

Cushioning and damping when high temperature variation is involved

**Advantages**

- Easy curing: **Bluesil™ RT FOAM 3241 A&B** crosslinks at temperatures above 20°C, even in the complete absence of air or humidity.
- Easy processing thanks to the simple 1:1 mix ratio.
- Good chemical and temperature resistance.
- Low hardness (Shore 00).
- Low compression set.
- High temperature stability.

The material expands without employing ozone depleting CFCs or other related blowing agents.

**Typical Properties**

**Characteristics of the non cured product**

<i>Properties</i>	<b>RT FOAM 3241 A</b>	<b>RT FOAM 3241 B</b>
<b>Aspect</b>	viscous fluid	viscous fluid
<b>Viscosity</b> <i>(At 23°C, mPa.s, ISO 3219, approx.)</i>	15.000	15.000
<b>Colour</b>	whitish	colorless
<b>Specific gravity</b> <i>(g/cm<sup>3</sup>)</i>	1.0	1.0

**Polymerization**

Mixing ratio:

**Bluesil™ RT FOAM 3241 A** ..... 100 parts

**Bluesil™ RT FOAM 3241 B** .....100 parts

<i>Properties</i>	<b>RT FOAM 3241 A&amp;B</b>
<b>Color</b>	White
<b>Pot life</b> (At 23°C, 50 % relative humidity, minutes)	5
<b>Demolding Time</b> (At 23°C, 50 % relative humidity, minutes)	30

**Remark:** Higher temperatures reduce pot life, lower temperatures prolong pot life.

The cell size increases as foaming temperature increases, being this effect more marked in static conditions than under centrifugation (as e.g. for rollers production).

### **3. Characteristics of the crosslinked product**

*Measured after curing 24 hours at 23°C on a 10 mm thick specimen*

<i>Properties</i>	<b>RT FOAM 3241 A&amp;B</b>
<b>Hardness</b> (Shore 00)	40
<b>Density</b> (g/ml)	0.25
<b>Compression set</b> (% compression after 72h at 23°C)	< 6

### **4. Adhesion**

Upon curing **BLUESIL RT FOAM 3241 A & B** exhibits some adhesion to most common substrates such as glass, steel, wood, Aluminium, glassfibres reinforced plastic; adhesion to some plastics and to cured silicone rubber can be usually promoted by means of **BLUESIL PRIMERS**.

Cured silicone foam manufactures can be glued to each other or to silicone rubbers by means of CAF 3 or CAF 33.

Please refer to the respective product datasheet or to Bluestar Silicones Technical Service for more information.

---

## **Processing**

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

### **1. Mixing of the two components**

Add 100 parts of **Bluesil™ RT FOAM 3241 A** to 100 parts of **Bluesil™ RT FOAM 3241 B**.

Part A and Part B should be thoroughly mixed together. Vigorous and thorough mixing should be maintained for about 30 seconds. The mixed product should then be quickly casted into the desired application site.

For larger volume applications, **Bluesil™ RT FOAM 3241 A&B** has been specifically designed with a favourable 1:1 mix ratio (both by weight or volume) to easily suit a robotic dispensing, where mixing is achieved by means of a dynamic mixer.

The type and degree of mixing and shear can significantly affect the cell structure, cure and density of the final foam product.

**Handling precaution:** Immediately upon mixing **Bluesil™ RT FOAM 3241 A&B** a chemical reaction takes place that results in the evolution of flammable hydrogen gas.

**APPROPRIATE CAUTION SHOULD BE EXERCISED.**

## Bluesil™ RT FOAM 3241 A&B

---

### **2. Crosslinking & Foaming**

The best curing conditions are at 23°C. The use of the product at higher temperatures will reduce the pot life and the demolding time. As opposed to this, lower temperatures will increase the pot life and the demolding time.

Anyway, processing **Bluesil™ RT FOAM 3241 A&B** at temperatures significantly different from 23°C will change significantly the foam final structure, that at high temperatures (>35°C) might become irregular and uneven, while at low temperatures (<20°C) the foam structure might collapse.

These effects are more marked in static conditions than under centrifugation (as e.g. for rollers production).

At 23°C, the cured silicone can be demoulded after the time indicated as "demolding time" (see § 2."Polymerization", page 2).

Be aware that contact with certain materials can inhibit the curing of **Bluesil™ RT FOAM 3241 A&B**:

- Sulphur and its derivatives (e.g. natural rubbers vulcanized with sulphur).
- Ammonia and amines (e.g. amine cured epoxies, epoxy curing agents).
- Chlorides.
- Polycondensation RTV o PUR catalysed with metal salts.
- PVC stabilizing agents.

If doubts exist it's 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 is frequently the main cause of inhibition. The best way is to use only dedicated gear when processing polyaddition **Bluesil™ RT FOAM 3241 A&B**.

---

### **Storage and shelf life**

When stored in its original packaging at a temperature between 0°C and +30°C, **Bluesil™ RT FOAM 3241 A&B** may be stored for up to 12 months from its date of manufacture. Comply with the storage instructions and expiry date marked on the packaging. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.

**Remark:** in case extreme transportation conditions cannot be avoided, **Bluesil™ RT FOAM 3241 A&B** may resist at -20°C for maximum 7 days; in such case we recommend to stabilize the product at room temperature and perform a quick test before using the foam.

---

### **Safety**

If **Part B of Bluesil™ RT FOAM 3241** comes in contact with strong acids, bases or oxidizing materials, hydrogen could generate. Ensure that containers are properly closed after each use in order to avoid any contamination of the contents.

#### **HYDROGEN GAS EVOLUTION:**

Adequate ventilation must be provided to prevent localised build-up of hydrogen gas concentration upon curing or unforeseen contamination of part B.

Keep away from sparks and open flames. Waste liquid material must be handled, disposed and stored considering this precautionary information, i.e. it should NOT be sealed in plastic bags and large quantities should not be allowed to accumulate.

please consult the safety Data sheets of **Bluesil™ RT FOAM 3241 A&B**.

---

### **Packaging**

**Bluesil™ RT FOAM 3241 A&B** is delivered in 200 Kg drums.

---

Bluesil™ is a registered Trademark of **Elkem SILICONES**



# Bluesil™ RT FOAM 3241 A&B

 <b>EUROPE</b>	 <b>NORTH AMERICA</b>	 <b>LATIN AMERICA</b>	 <b>ASIA PACIFIC</b>
<i>Elkem Silicones France 21 Avenue Georges Pompidou F69486 Lyon Cedex 03 FRANCE Tel. (33) 4 72 13 19 00 Fax (33) 4 72 13 19 88</i>	<i>Elkem Silicones USA Two Tower Center Boulevard Suite 1601 East Brunswick, NJ 08816-1100 United States Tel. (1) 732 227 2060 Fax (1) 732 249 7000</i>	<i>Elkem Silicones Brazil Ltda. Av. Maria Coelho Aguiar, 215 Bloco G -1º Andar 05804-902 - São Paulo - SP - Brazil Tel. (55) 11 3747 7887 Fax (55) 11 3741 7718</i>	<i>Elkem Silicones Hong Kong Trading Co. Ltd. Unit C, 18/F Manulife Tower 169 Electric Road North Point-Hong Kong Tel. (852) 3106 8200 Fax (852) 2979 0241</i>
<b>Warning to the users</b> The information contained in this document is given in good faith based on our current knowledge. It is only an indication and is in no way binding, particularly as regards infringement of or prejudice to third party rights through the use of our products. Elkem SILICONES guarantees that its products comply with its sales specifications. This information must on no account be used as a substitute for necessary prior tests which alone can ensure that a product is suitable for given use. Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorizations. Users are requested to check that they are in possession of the latest version of this document and Elkem SILICONES is at their disposal to supply any additional information.			