



# BLUESIL™ RTV-141

## Optically Clear Potting Compound for Electronics

**Description** **BLUESIL™ RTV-141** is a two component, optically clear, high strength silicone elastomer. It is particularly suited to the potting of solar cells and electronic assemblies, or wherever a tough, elastic and transparent protection is required.

**Applications**

- Protection of electronic components and electrical engineering equipment by encapsulation or filling
- Optoelectronic connections
- Insulating photovoltaic cells
- Sheathing-cladded core optical fibers

### Typical Properties

TYPICAL PROPERTIES - AS SUPPLIED		TYPICAL CATALYZED PROPERTIES	
Part A - Base Component		Mixed at 24°C (75°F) and 50% R.H.	
• <b>Color</b>	Clear	• <b>Mix Ratio</b> , A:B (Parts by weight)	10:1
• <b>Consistency</b>	Pourable	• <b>Viscosity</b> , cP. (mPa.s)	3,000
• <b>Viscosity</b> , cP. (mPa.s)	3,500	• <b>Pot Life</b> , hours <sup>(1)</sup>	6
• <b>Specific Gravity</b>	1.02		
Catalyst Component			
• <b>Color</b>	Clear		
• <b>Specific Gravity</b>	1.02		
• <b>Viscosity</b> , cP. (mPa.s)	700		
TYPICAL ELECTRICAL PROPERTIES			
• <b>Dielectric Strength</b> , kv/mm	20	• <b>Dissipation Factor</b> , 1 KHZ	.001
• <b>Dielectric Constant</b> , 1 KHZ	2.70	• <b>Volume Resistivity</b> , ohm-cm	1 x 10 <sup>15</sup>
TYPICAL PROPERTIES OF CURED RUBBER, Cured 7 days at 24°C (75°F) and 50% RH			
Property	Test Method	Value	
• <b>Color</b>		Clear	
• <b>Hardness</b> (Shore A)	ASTM D2240	50	
• <b>Tensile Strength</b> , psi (N/mm <sup>2</sup> )	ASTM D412	900 (6.2)	
• <b>Elongation</b> (%)	ASTM D412	115	
• <b>Tear Resistance</b> , ppi (N/mm)	ASTM D624, Die B	28 (4.9)	
<b>CURE SCHEDULES;</b> 4 Hours at 65°C (150°F); 2 Hours at 100°C (212°F); 1 Hour at 150°C (300°F)			

<sup>(1)</sup> Time at which material gels.

**Please note:** The typical properties listed in this data sheet are not intended for use in preparing specifications for any particular application of BLUESIL™ silicone materials. Please contact our Technical Service Department for assistance in writing specifications.

### Kit Matching

Many Bluestar Silicones Aerospace and Industrial products are kit matched when manufactured. These products should be processed using the specific matched Part A and Part B units supplied with the kit. Using a different lot of Part A or Part B may affect the properties of the product.

### Cure Inhibition

Some Bluestar Silicones Aerospace and Industrial products cure by addition polymerization using catalysts, which may be inhibited by other materials, found in some insure system compatibility.

Especially troublesome materials are: Amine catalyzed epoxies, sulfur catalyzed rubbers such as neoprene latex SBR, vinyl coated wire, vinyl tapes, solder flux, tin catalyzed silicone rubbers, resinous woods, and some polyurethane elastomers.

# BLUESIL™ RTV-141



distribuito da:  
**ANDREA GALLO DI LUIGI S.r.l.** November 2011  
[azienda fondata nel 1892](http://azienda.fondata.nel.1892)  
Via Erzelli, 9 - 16152 Genova (Italy)  
Tel. 010.650.29.41  
[www.andreagallo.it](http://www.andreagallo.it)

## Instructions for use

1. Mix Part A and Part B components according to recommended weight ratios. If power equipment is to be used, it is generally recommended to keep mixing speed at or below 350 rpm to prevent heat buildup, which can cause loss of working time and premature curing of the rubber. It is recommended that the container be filled to not more than 1/3 the container height to allow sufficient room for expansion during the deaeration procedure.
2. For these products requiring deaeration, place mixed material in a vacuum chamber and exert 29 inches Vacuum on the material. Some products will require that the vacuum be interrupted or "bumped" several times before the material crests and falls by itself. After the material has receded, keep the mixed material under full vacuum for a minimum of 15 minutes. Bleed air slowly into the chamber until atmospheric equilibrium is reached. Remove mixed and vacuumed material from the chamber. The material is now ready for pouring.
3. Some Bluestar Silicones Aerospace and Industrial products have a very long mixed pot life.
4. Storing the mixture in a tightly sealed container at 0°F (-18°C) may extend the pot life even longer. Care should be taken when using this method to prevent moisture from condensing on the inside of cold containers and contaminating the mixture.

## Mixing Equipment

Unwaxed paper, stainless steel, glass, or high-density polyethylene or polypropylene containers, stainless steel spatulas, and metal power mixing equipment should be used to prevent product contamination. Do not use rubber or vinyl containers or mixing equipment. Power mixing equipment and spatulas should be wiped clean after every use and washed with a suitable solvent to maintain contaminant free mixing equipment and assure product quality.

## Storage and shelf life

When stored in its original unopened packaging, at a temperature of 27°C (80°F), **BLUESIL™ RTV-141** may be stored for 24 months from the date of manufacture. Beyond this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.

## Safety

Please consult the Safety Data Sheet. This rubber system uses an organometallic tin catalyst, which may irritate or burn skin and eyes upon contact. If eye contact occurs, flushing with water for at least 15 minutes should relieve discomfort. If irritation or discomfort persists, obtain medical attention. To obtain a material safety data sheet for this product contact Bluestar Silicones at 866-474-6342.

## Packaging

**BLUESIL™ RTV-141** is available in 5 kg kits.

BLUESIL™ is a Trademark of **Bluestar Silicones**

 EUROPE	 NORTH AMERICA	 LATIN AMERICA	 ASIA PACIFIC
<i>Bluestar Silicones France</i> 21 Avenue Georges Pompidou F69486 Lyon Cedex 03 FRANCE Tel. (33) 4 72 13 19 00 Fax (33) 4 72 13 19 88	<i>Bluestar Silicones USA</i> Two Tower Center Boulevard Suite 1601 East Brunswick, NJ 08816-1100 United States Tel. (1) 732 227 2060 Fax (1) 732 249 7000	<i>Bluestar Silicones Brazil Ltda.</i> 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>Bluestar Silicones Hong Kong</i> Trading Co. Ltd. 29 <sup>th</sup> Floor, 88 Hing Fat Street Causeway Bay Hong Kong Tel. (852) 3106 8200 Fax (852) 2979 0241

### Warning to users

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 to infringement of or prejudice to third party rights through the use of our products. **BLUESTAR SILICONES** warrants that its products comply with its sales specifications. This information must not be used as a substitute for necessary prior tests, which ensure that a product is suitable for a given use. Determination of the suitability of product for the uses and applications contemplated by user and others shall be the sole responsibility of user. Users are responsible for ensuring compliance with local legislation and for obtaining necessary certifications and authorizations. Users are requested to ensure that they are in possession of the latest version of this document; please contact **BLUESTAR SILICONES** for the latest version and any additional information.