

BLUESIL™ RTV 150 LD A & RTV 147 B BLACK

Aerospace Abradable Seal

Description **BLUESIL RTV 150 LD A & RTV 147 B BLACK** is a black, two-component addition cure, silicone aerospace sealant.

It has been specifically designed to manufacture air seals for compressors blades of Jet engines. It is meeting the specifications, and has been qualified for this application by GE-Aviation:

- **BLUESIL RTV 150 LD A**: qualified to A15 F36 s4
- **BLUESIL RTV 147 B BLACK**: qualified to A15F35 B2 s3

BLUESIL RTV 150 LD A & RTV 147 B BLACK imparts high thermal stability, good processing and low density.

Examples of applications Abradable air seal for compressor blades of jet engines.

Advantages

- Easy processing.
- Low density.
- Non corrosive.
- High thermal stability.

Characteristics

1. Before curing

<i>Properties</i>	BLUESIL RTV 150 LD A	BLUESIL RTV 147 B BLACK
Appearance	Paste	Liquid
Color	Beige	Black
Specific gravity at 23°C, approx.	0.85	1.25
Viscosity (*) at 25°C, Pa.s, approx.	900	/
Viscosity at 25°C, 4 spindle, 5 rpm, mPa.s, approx.	/	6 000

(*) P20 plate/500 µm gap, CSR 1.5, measured at 60 sec.

2. Mixing of the two components

<i>Properties</i>	RTV 150 LD A & RTV 147 B BLACK
Mixing ratio A:B (Parts by weight)	10:1
Viscosity (*) at 25°C, Pa.s, approx.	900
Pot life at 23°C, hours, approx.	2

(*) P20 plate/500 µm gap, CSR 1.5, measured at 60 sec.

3. Cured compound

Mechanical properties are measured after curing 1 hour at 150°C:

<i>Properties</i>	RTV 150 LD A & RTV 147 B BLACK
Hardness Shore A (ASTM D2240, approx.)	77
Tensile strength (MPa, approx.)	3.4
Elongation at break (% , approx.)	30

BLUESIL™ RTV 150 LD A & RTV 147 B BLACK**Processing****1. Mixing of the two components**

Mix Part A and Part B components according to recommended weight ratios.

Automatic mixing: The products should be used by means of automatic dosing equipment with a meter/static mixer because of the efficiency of degassing the material.

In order to avoid any air bubbles that may affect the mechanical properties, it is recommended to degas separately A and B part, after pouring it slowly and regularly into the tanks of the dosing machine. The A and B parts should be dosed and mixed with a static mixer with standard commercial equipment (A special care is recommended in pumping the product from the tanks to avoid any air entry before dosing and mixing).

Hand mixing: If necessary, limited to control sample preparation products can be mixed by hand with special care (Recommendation is to use spatula, as A part has a high viscosity) in order to limit the inclusion of air in the mixture.

After mixing A and B parts, it is preferable to degas the product to eliminate the air bubbles that would be visible in the finished part and which would reduce the mechanical properties.

Degassing is generally carried out with a vacuum of 30 to 50 mbar releasing the vacuum several times during the operation. A recipient with a high diameter/height ratio is better suited to quick degassing; however the height must be sufficient to contain the swelling of the elastomer under vacuum conditions.

2. Cure inhibition

Certain materials that the **BLUESIL RTV 150 LD A & RTV 147 B BLACK** may be in contact with when curing could inhibit the reaction. Especially troublesome materials are: sulphur-containing cured natural and synthetic rubber compounds (neoprene, latex, SBR), tin catalyzed silicone rubbers, amine catalyzed epoxies, PVC stabilized with tin salts and some polyurethane elastomers.

Packaging

- **BLUESIL RTV 150 LD A** is delivered in pails of 15 kg.
- **BLUESIL RTV 147 B BLACK** is delivered in pails of 20 kg and buckets of 2.5 kg.

Storage and shelf life

When stored in their original unopened packaging at a temperature of between -5°C and +30°C,

- **BLUESIL RTV 150 LD A** may be stored for up to 12 months,

- **BLUESIL 147 B BLACK** may be stored for up to 18 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 150 LD A** and **BLUESIL RTV 147 B BLACK**.

BLUESIL™ RTV 150 LD A & RTV 147 B BLACK

Warning to the users

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