

# Bluesil™ V 695

October 2017

## Silicone Aerospace Sealant

**Description** **Bluesil™ V-695** is a black, two component addition cure, flowable silicone aerospace sealant for the use as an abradable air seal for compressor blades of jet engines. **Bluesil™ V-695** imparts high thermal stability, good machinability, long work time, and low density. It is also designed to achieve optimum properties at the specified elevated temperature cure schedule.

**Applications** Abradable air seal for the compressor blades of jet engines.

### Typical Properties

TYPICAL PROPERTIES - AS SUPPLIED		TYPICAL CATALYZED PROPERTIES	
<u>Part A - Base Component</u>		Mixed at 24°C (75°F) and 50% R.H.	
• <b>Color</b>	Black	• <b>Mix Ratio</b> , A:B (By weight)	10:1
• <b>Consistency</b>	Pourable	• <b>Viscosity</b> , cP. (mPa.s)	190,000
• <b>Viscosity</b> , cP. (mPa.s)	350,000	Brookfield, HAT, #7 Spindle, 10 rpm	
Brookfield, HAT, #7 Spindle, 10 rpm			
<u>Part B - Catalyst Component</u>			
• <b>Color</b>	Clear		

TYPICAL PROPERTIES OF CURED RUBBER, Cured 2 hrs. @ 150°C (300°F) in mold; Post cured 1 hr. @ 204°C (400°F) out of mold		
Property	Test Method	Value
• <b>Color</b>		Black
• <b>Specific Gravity</b>		0.74
• <b>Hardness</b> (Shore A);	ASTM D2240	58
• <b>Tensile Strength</b> , psi (N/mm <sup>2</sup> );	ASTM D412, Die C	330 (2.3)
• <b>Elongation</b> (%);	ASTM D412, Die C	110
• <b>Lap Shear Strength</b> , psi (N/mm <sup>2</sup> ) (Primed AMS 4910 titanium panels & cured 1.5 hrs. at 150°C (300°F))		170 (1.2)

**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 Team for assistance in writing specifications.

**Kit Matching** Many Elkem 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 Elkem 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 catalyze epoxies, sulfur catalyzed rubbers such as neoprene latex SBR, vinyl coated wirte, vinyl tapes, solder flux, tin catalyzed silicone rubbers, resinous woods, and some polyurethane elastomers.

**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.

## 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 Elkem Silicones Aerospace and Industrial products have a very long mixed pot life. 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.

## Storage and shelf life

When stored in its original unopened packaging, at a temperature of 27°C (80°F), **Bluesil™ V-695** may be stored for 12 months from the date of manufacture. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.

## Safety

Please consult the Safety Data Sheet of **Bluesil V-695**

## Packaging

**Bluesil V-695** is available in multiple packages please check with our team..

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