

Bluesil™ V 658

October 2017

Addition Cure Aerospace Compound

Description **Bluesil™ V-658** is a white, semi-thixotropic, two component, addition cure aerospace compound developed for applications where a flame-resistant thermal barrier or ablation performance is required. **Bluesil™ V-658** must be heat cured to obtain optimum properties.

- Applications**
- Shielding for launch and support equipment
 - Ablative shielding
 - After-burner shielding
 - Fire wall insulation
 - Case liner insulation
 - Nozzle assembly thermal barrier

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.	
• Color	White	• Mix Ratio , A:B (By weight)	10:1
• Consistency	Semi-thixotropic	• Pot Life , Hours ⁽¹⁾	3
• Viscosity , cP. (mPa.s)	450,000		
<u>Part B - Catalyst Component</u>			
• Color	Beige		

TYPICAL PROPERTIES OF CURED RUBBER, Cured 30 minutes @ 150°C (300°F)		
Property	Test Method	Value
• Color		White
• Specific Gravity		1.34
• Hardness (Shore A)	ASTM D2240	76
• Tensile Strength , psi (N/mm ²)	ASTM D412	725 (6.0)
• Elongation (%)	ASTM D412	65

ADHESION		
BLUESIL™ V-658 can be bonded to most substrates with the use of BLUESIL™ V-06 primer and cured for 30 minutes at 150°C (300°F).		

(1) 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 Silcolease silicone materials. Please contact our Technical Service Team for assistance in writing specifications.

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 wirtte, 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.

Instruction 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-658** may be stored for 18 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-658**.

Packaging

Bluesil V-658 is available in multiple packages, please check with our team.

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