

ELKEM SILICONES & MVP

Transforming Silicone Vacuum Bags for Closed Molding Excellence





Fiber Reinforced Plastic (FRP) composites play a pivotal role in diverse industries such as automotive, transportation, energy, marine, infrastructure, recreation, and more. Renowned for their exceptional mechanical properties, low density, and robust resistance to water, chemicals, and environmental pressures, these composites are integral to various manufacturing processes.

The closed mold process is a primary method for producing high-quality composite parts. To enhance efficiency, reduce labor costs, and minimize waste, manufacturers have shifted their focus towards reusable silicone vacuum membranes, a departure from traditional infusion methods which requires more consumables. This strategic shift not only improves quality but also contributes to improved industrial safety and workplace cleanliness.

In collaboration with MVP, Elkem has introduced a tailored silicone product for FlexMolding, a silicone vacuum infusion molding technology designed to accelerate production. This collaborative effort aims to optimize the application experience in membrane construction, extending its lifespan. The two components (A&B) are expertly sprayed using MVP's equipment that precisely blends and applies the silicone seamlessly. Elkem & MVP are reshaping the landscape of closed molding with a focus on performance, efficiency, and longevity.

► 1:1 PATRIOT SILICONE SYSTEM

Best application performances are obtained with MVP Patriot Silicone System specifically designed to mix and dispense multiple 1:1 volumetric material, making it ideal for producing reusable membranes. The system was developed to mix and dispense viscous materials through a gravity feed system that eliminates the need for a ram pump.

SYSTEM FEATURES

- 1:1 fixed ratio fluid pumps
- Precise Patriot™ metering technology
- 15 gallon A + B polyethylene tanks for gravity feeding
- Single trigger action to start/stop the spray flow
- Easy low cost maintenance on gun
- Reduced downtime for standard system maintenance with rapid access design





▶ WHY CHOOSE ELKEM & MVP?

Elkem brings unparalleled expertise in silicone technology, while MVP excels in machine/process innovation. By joining forces, we offer a unique synergy of skills and knowledge, providing customized services and solutions tailored to meet your specific needs. Our team of experts are ready to provide advice, technical solutions and hands-on training for your technicians and operators.

KEY BENEFIT

- Easy processing
- Room Temperature curing
- Excellent mechanical properties
- No sagging
- Chemical resistant
- Good gel time
- Wide recoat time

Elkem recently launched BLUESIL™ RTV 3724 A&B, a sprayable and brushable platinum cure silicone developed together with MVP to produce high performance, re-usable vacuum bags.

BLUESIL™ RTV 3724 A&B is easy to mix and apply: mix ratio is 1A:1B by volume and can be applied on vertical surface without sagging.

Pot life is 25 min and cures with negligible shrinkage. The product is applied in several layers with a recoat time of 1 hour. It offers an extremely wide open time for the recoat until 48 hours. BLUESIL™ RTV 3724 can be demoulded from the tool after 24 hours from the last applied layer and offers very high elongation and tear strength properties.

BLUESIL™ RTV 3724 can be used in combination with silicone adhesive RTV1: CAF33 TRANSPARENT for sealing and adhesive purpose on RTV 3724 -CAF 33 is a thixotropic adhesive

BLUESIL™ RTV 3724 25 Pot life (min) Demolding time (min) 90 Thixotropy Color **ORANGE** Hardness (shoreA) 20 Tensile streght(Mpa) Tear strenght(kN/m) 15 Elongation (%) 500 Polyester Chemical resistance +Epoxy resin

► APPLICATION ON VERTICAL SURFACE

New Bluesil™ RTV 3724



