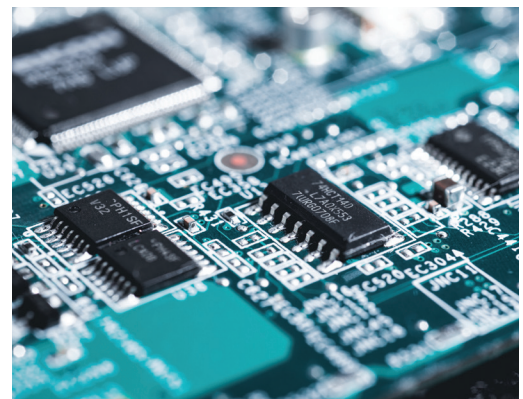


Sulfur-Free Foams

Armacell's sulfur-free* EPDM foams answers the demand from engineers and designers seeking a product free from added sulfur. From automotive and consumer electronics to outdoor lighting or industrial cabinets, our non sulfur added foams are an innovative solution to the problem of corrosion due to sulfur outgassing, creep corrosion, and silver surface tarnishing. Monarch® sulfur-free foam is ideal for use in environments around LED mechanisms, electronic cabinets, circuit boards, electrical enclosures, speaker housings, or where metal components are exposed and there is a risk of sulfur corrosion.

Armacell is innovating for tomorrow.

www.armacell.us



Sulfur-Free: The Way to Be

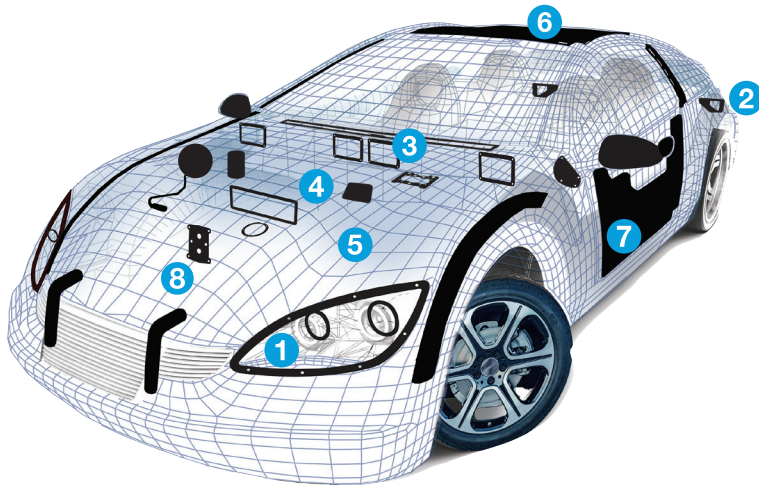
In product design, rubber-based gaskets are used to seal out elements such as water, air, and dust, and they can provide protective cushioning, shock attenuation, vibration control, and sound absorption. In the past, the electronics industry has manufactured printed circuit boards (PCB) using tin-lead alloy solders. Trending now is the move away from lead-based alloy solder to the use of immersion silver (ImAg). ImAg tends to tarnish in the presence of sulfur, but even more problematic is its tendency to creep corrode in elevated humidity. The concern of corrosion that can lead to system failure drives the need for product advancement.



COMPONENT FOAMS

Automotive

In automotive design, elastomeric gaskets are used throughout a vehicle to seal out water, air and dust, as well as reduce vibration, rattling, sound absorption, and high frequency noises. When used with electric components like LED headlights or dashboard electronics, sulfur-cured foam gasketing materials near metal connectors and soldering pieces can cause metal components to corrode resulting in system failures. Non-sulfur cured Monarch foams have no sulfur added in the manufacturing process, eliminating the possibility of sulfur outgassing reacting with water vapor causing critical system corrosion.



- 1 LED Headlights
- 2 LED Taillights and Brake Lights
- 3 Dashboard Electronics
- 4 Electrical Enclosures
- 5 Electronic Control Modules (ECU/ECM)
- 6 Sunroof
- 7 Doors
- 8 Hoods

If you need product help or have further questions, contact one of our technical managers for your next project or application.

Industrial High-Tech



In high-tech product design, rubber-based gaskets are used as protective cushioning, vibration control, and sealing out water, air and dust. Sulfur-cured foam components used in padding, cushioning, protection, and sealing can impact metal parts and cause corrosion over time and failure on high-tech equipment like LCD displays, circuit boards, electrical panels, lighting systems, industrial electrical systems, and other sensitive parts inside electronics. Monarch foams also perform especially well in humid weather environments due to their fine closed-cell structure.

Monarch products are EPDM, non-sulfur cured foams produced in bun form in the USA. Besides having no sulfur added during the manufacturing process, these foams have excellent corrosion- and heat-resistance properties. Converters will find that Monarch foams are durable and easy to process and cut for their applications.

ATTRIBUTES

- // Sulfur-Free
- // No Sulfur Added
- // Fine Closed-Cell Structure
- // Heat Resistance
- // Acid Resistance
- // Excellent ozone resistance
- // Made in the USA

*Defined as no sulfur introduced to the formulation during the manufacturing process.

All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. Despite taking every precaution to ensure that said data and technical information are up to date, Armacell does not make any representation or warranty, express or implied, as to the accuracy, content or completeness of said data and technical information. Armacell also does not assume any liability towards any person resulting from the use of said data or technical information. Armacell reserves the right to revoke, modify or amend this document at any moment. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. This document does not constitute nor is part of a legal offer to sell or to contract.

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ABOUT ARMACELL

As the inventor of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With more than 3,300 employees and 27 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for acoustic and lightweight applications, recycled PET products, next-generation aerogel technology and passive fire protection systems.

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