

COMPONENT FOAMS

# Automotive

Approved by major automobile manufacturers around the world, Armacell's wide range of foam formulations are used as components that meet the strict standards that car companies demand. **Armacell is driven by performance.**

[www.armacell.us](http://www.armacell.us)



 **armacell**<sup>®</sup>  
MAKING A DIFFERENCE AROUND THE WORLD

## ARMACELL IN ACTION

For most major car makers, all parts must be made from materials that are on their approved source list. It's a competitive business and only the best suppliers with a proven track record of quality, new technology, on-time delivery and service will make the cut. Once a material has been included on the approved source list or our fabricator partners have been selected as preferred suppliers, the task is not over. We must continually maintain or improve our specs to stay competitive and meet the high expectations of auto makers and their supply chain.

### FORD MOTOR COMPANY Making a sound investment

Since 1903 Ford's heritage has been closely tied with the growth of our global society. As the world industrialized and urbanized, car manufacturing met the continual demands of that growth. As such Ford depends on materials that uphold their reputation in the automotive field. The Ford WSS-M99P32-E1 standard specifies the performance of acoustical materials and insulators for interior assemblies. A number of Armacell Component Foam products have been tested to this Ford specification. From our Conover, North Carolina plant, EnsoLite® IU0 and IV1 are low and medium density foams which have good flame, oil and fuel resistance, which is critical in a car chassis. IV2 has additional shock absorption properties. EnsoLite SF0 has also been tested to this spec, but is a very soft, crushed foam material with acoustical benefits that are ideal for quieting car interiors. Monarch® 5021 and 5022, made in Spencer, West Virginia, are closed cell rubber blend foams produced in buns. Both have good resistance to UV, ozone and weathering. Another Ford Motor Company spec, Ford WSS-M99P48-A1, defines the minimum durability of foams that can be used for interior, exterior and underhood applications. Several of Armacell Component Foams have been tested to this specification as well. Armacell manufactured more than 6 million square feet of SF0 in 2018, much of it going into automotive parts.

#### Products:

EnsoLite® IU0, IV2, SF0  
Monarch® 5021, 5022



Armacell's foam is used in automotive components such as gaskets for sealing out water, air, dust or noise.

## GENERAL MOTORS Driving Revolutionary Ideas

For more than 100 years GM has been known for its innovative ideas. Today they are committed to an automotive future free from crashes, emissions and congestion with the development of electric cars and self-driving technology. Armacell participates in that goal as a supplier of foam on the GM approved source list. We currently make a number of EnsoLite and Monarch foams that meet the GMW 17408 spec for expanded rubber materials for air, dust, noise and water sealing. Our products are closed cell so they seal out air, dust and moisture, but also serve to isolate vibration and rattles that can be extremely distracting in a car. Our EPDM materials have the added benefit of a good resistance to acid and stand up to UV, ozone and weathering. EnsoLite is sold in sheets or continuous rolls and Monarch is produced in blocks called "buns."

### Products:

EnsoLite® EF0, IU0, MLC-Black, EG0  
Monarch® 3091, 5013, 5031, 5055

## FIAT CHRYSLER AUTOMOBILES Made in America with Pride

In the 1930's Chrysler was known for its iconic Chrysler building in New York City and affordable luxury vehicles. Now they are known as a maker of family cars including a hybrid. Armacell makes a number of materials on the approved source list for FCA including Monarch 3091 and EnsoLite EF0 which meet the MSAY 430 spec. Both have the necessary resistance to UV, weathering and acid. They meet the horizontal burn requirements for interior automotive gaskets. EnsoLite EF0 has the added benefit of being a super soft and conformable, semi-closed cell, crushed foam that works well in applications that require the material to spring back to its original thickness.

### Products:

EnsoLite® EF0  
Monarch® 3091

## TOYOTA MOTOR CORP Doing it the Toyota Way

For 75 years, Toyota has disrupted the market and revolutionized manufacturing. As a maker of cars that are known for efficiency and reliability, Toyota stands by their brand. It makes sense that they insist on suppliers that do the same. Armacell makes a number of products that meet the tough Toyota TSM 1501G spec for automobile parts. Monarch 8002 is a 100% EPDM bun that has a dependable resistance to corrosive acids, UV and weathering. That means the material will hold up to the abuse auto parts take over time. EnsoLite IG1, manufactured in continuous rolls or sheets, has excellent resistance to oil, fuel and flame. These qualities make EnsoLite and Monarch great choices for gaskets and seals in automotive design.

### Products:

EnsoLite® IG1  
Monarch® 8002

# 6,000,000 ft<sup>2</sup>

Armacell made more than 6 million square feet of EnsoLite SF0 in 2018.



For more products tested to auto specifications, visit [www.armacell.us](http://www.armacell.us).

All data and technical information are based on results achieved under typical application conditions. 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. By ordering/receiving product you accept the Armacell General Terms and Conditions of Sale applicable in the region. Please request a copy if you have not received these.

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## ABOUT ARMACELL

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As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic 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 3,000 employees and 25 production plants in 17 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

For more information, please visit:  
[www.armacell.us](http://www.armacell.us)

