



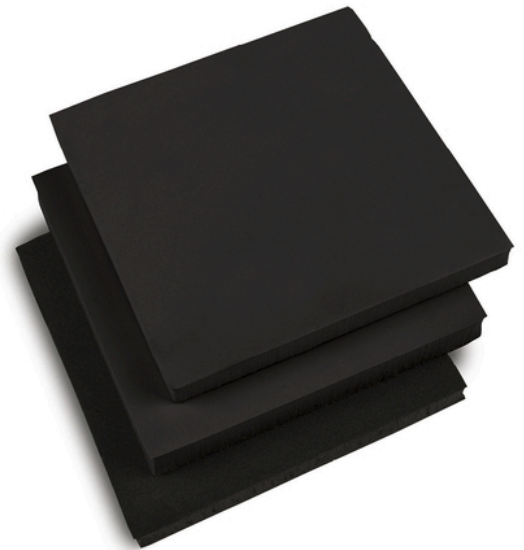
DRIVEN BY PERFORMANCE

EnsoLite MLC-Black

Engineered solution for a wide array of sealing and gasket applications.

- // Soft firmness
- // Good flame performance
- // Good oil and fuel resistance
- // Meets OEM specifications

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TECHNICAL DATA - ENSOLITE MLC-BLACK

Brief description	MLC-Black is a NBR/PVC closed cell foam product produced in continuous rolls. It is a soft, low density foam that meets ASTM D 1056 2C1 requirements. This product has good flame performance and oil/fuel resistance. This product is UL listed to UL94 flammability and UL gasket & seals. This product meets various automotive specifications.
Product color range	Black
ASTM D 1056 Designation	2A1/2C1
Cell structure	Closed
Form	Roll
Polymer	NBR/PVC
Markets	Automotive, Electrical, Equipment, Medical
Applications	Gaskets and seals

Source	Specification	Comments
Approvals and specifications		
Stellantis (FCA / Chrysler)	MSAY 516 MS.90145 Type 1	
Caterpillar	1E0707E	
General Motors	GMW 17408 Class IIIA - IIIE Type IV	Interior & Exterior Applications

Property	Value / Assessment				Standard / Test method
Temperature range					
Service temperature	Min. °C	Min. °F	Max. °C (intermittent)	Max. °F (intermittent)	ASTM D1056
	-40	-40	93.3	200	
Flammability					
Flame FMVSS 302 (burn rate)	3.94 in/minute (100 mm/minute) max Passes at 0.250 in (6.35 mm) and higher				FMVSS 302
UL standards					
UL94 HBF	Passes at 6.6 mm (0.260 in) minimum thickness UL File # QORU2.E535094 & # QORU8.E535094				UL 94
UL94 HF-1	Passes at 2.9 mm (0.114 in) - 6.6 mm (0.260 in) thickness only UL File # QORU2.E535094 & # QORU8.E535094				UL 94
Resistance to water					
Water absorption by vacuum	5% max				ASTM D1056
Physical attributes					
Density	3.5 - 5.5 lb/ft ³ 56.1 - 88.1 kg/m ³				ASTM D1056
Mechanical properties					
Compression set	40% max				ASTM D1056
Tensile strength	40 psi min 276 kPa min				ASTM D412 (Die A)
Elongation	150% min				ASTM D412 (Die A)
Tear strength	8 lb/in min 1.4 kN/m min				ASTM D624 (Die C)

Property	Value / Assessment	Standard / Test method
Hardness durometer shore 00	20 - 40	ASTM D2240
Fluid immersion	250% max	ASTM D1056
Compression deflection		
Compression deflection 25%	2 - 3.5 psi 13.8 - 24.1 kPa	ASTM D1056
Compression deflection 50% - 60 sec hold	6.96 - 14.07 psi 48.01 - 97 kPa	ISO 3386-1
Change in compression deflection	±30 %	ASTM D1056
UL Listed		
UL gaskets and seals	UL File # JMST2.MH10189 UL50 and UL50E continuous and periodic recompression applications for enclosure types: 2, 3, 3R, 3RX, 3S, 3SX, 4, 4X, 5, 6, 6P UL gaskets & seals max service temperature: 60°C (140°F)	UL 50E, UL 50

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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 25 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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