

Brief description	4051 is an epichlorohydrin (ECH), closed cell foam product produced in bun form. It is a soft, medium density, foam product that meets ASTM D 1056 2B1 requirements. 4051 is an excellent solution for applications where resistance to high temperature and/or oil/fuel is required.
Product color range	Black
ASTM D 1056 Designation	2A1/2C1/2B1
Cell structure	Closed
Form	Bun
Polymer	ECH
Markets	Automotive
Applications	Gaskets and seals

Property	Value / Assessment	Standard / Test method
Operating temperature		
Operating temperature	Min: -40°C [-40°F] Max (intermittent): 163°C [325°F] Max: 149°C [300°F]	
Flammability		
Flame FMVSS 302 (burn rate)	3.94 in/minute (100 mm/minute) max Passes at 0.125 in (3.18 mm) and higher	FMVSS 302
Resistance to water		
Water absorption by vacuum	5% max	ASTM D1056
Physical attributes		
Density	12 - 18 lb/ft³ 192 - 288 kg/m³	ASTM D1056
Mechanical properties		
Compression set	35% max	ASTM D1056
Tensile strength	40 psi min 276 kPa min	ASTM D412 (Die A)
Elongation	200% min	ASTM D412 (Die A)
Tear strength	12 lb/in min 2.1 kN/m min	ASTM D624 (Die C)
Hardness durometer shore 00	40 - 60	ASTM D2240
Resilience	28 - 38%	ASTM D2632
Fluid immersion	50% max	ASTM D1056
Compression deflection		
Compression deflection 25%	2 - 5 psi 13.8 - 34.5 kPa	ASTM D1056
Change in compression deflection	±30 %	ASTM D1056

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As the inventor of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal and mechanical insulation solutions that create sustainable value for its customers. Armacell's products significantly contribute to driving energy efficiency worldwide. With more than 3,100 employees and 26 production plants in 20 countries, Armacell 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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