## DRIVEN BY PERFORMANCE

# Monarch® 5031

Closed cell EPDM / CR / SBR blend foam in bun form

// ASTM D 1056 2A1

// Manufactured in buns (blocks)

// UL Listed: UL94 HF-1

// UL Listed: UL50E, UL48 & UL508 (gaskets and seals)

// Listed on the approved source list for MAHLE [Delphi] GN AR 06220 Par 6.1

[MAHLE GN AR 06346] and GMW 17408 Class I Type IV (see Note 1)

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#### MONARCH 5031 | Closed cell EPDM / CR / SBR blend foam in bun form

Monarch® 5031: Armacell (Spencer, WV Plant) manufactures a black, closed cell, 4 - 8 lb/ft³ (64 - 128 kg/m³) density, EPDM / CR / SBR blended rubber product 5031, that meets the physical property requirements of ASTM D 1056 2A1. 5031 incorporates flame retardants, meets the horizontal burn / flame requirements of FMVSS 302 at 2.5 mm (0.098") and higher. 5031 is listed with UL to UL94 HF-1 (UL File #: QMFZ2.E55798). 5031 is listed with UL to UL50E [periodic & continuous compression] UL48 & UL508 (UL File#: JMLU2.MH25062). This product is also available in gray (5931 - UL50E / UL48 / UL508 listed but not UL94 listed). 5031 is listed on the approved source list for GMW 17408 Class I Type IV and MAHLE [Delphi] GN AR 06220 Par 6.1 [MAHLE GN AR 06346].

#### TECHNICAL DATA SHEET | BUNS (effective 2/10/2023)

#### POLYMER: EPDM/CR/SBR

| Physical Property                            |                   | Test Method        | Unit            | Value                                 |
|--|-------------------|--------------------|-----------------|---------------------------------------|
| ASTM D 1056 Designation                      |                   |                    |                 | 2A1                                   |
| Cell Structure                               |                   |                    |                 | Closed                                |
| Color  |                   |                    |                 | Black (also available in Gray (5931)) |
| Compression Deflection 25%                   |                   | ASTM D 1056        | psi<br>kPa      | 2 - 5<br>13.8 - 34.5                  |
| Compression Deflection 25%, after Heat Aging |                   | ASTM D 1056        | %               | <u>+</u> 30                           |
| Compression Deflection 50%, 60 second hold   |                   | ISO 3386-1         | psi<br>kPa      | 6.96 - 14.06<br>48.01 - 97            |
| Compression Set (Room temp)                  |                   | ASTM D 1056        | %               | 45 max                                |
| Density                                      |                   | ASTM D 1056        | lb/ft³<br>kg/m³ | 4 - 8<br>64 - 128                     |
| Elongation                                   |                   | ASTM D 412 (Die A) | <del>%</del>    | 100 min                               |
| Flammability                                 |                   | FMVSS 302          | in<br>mm        | 0.098 and higher<br>2.5 and higher    |
| Hardness, Durometer Shore 00                 |                   | ASTM D 2240        | _               | 40 - 60                               |
| Resilience                                   |                   | ASTM D 2632        | %               | 28 - 38                               |
|  | Low               | ASTM D 1056        | °F<br>°C        | -40<br>-40                            |
| Service Temperature                          | High Continuous   | _                  | °F<br>°C        | 200<br>93.3                           |
|  | High Intermittent | _                  | °F<br>°C        | 250<br>121                            |
| Tear Strength                                |                   | ASTM D 624 (Die C) | lb/in<br>kN/m   | 7.1 min<br>1.24 min                   |
| Tensile Strength                             |                   | ASTM D 412 (Die A) | psi<br>kPa      | 45 min<br>310 min                     |
| Water Absorption                             |                   | ASTM D 1056        | %               | 5 max                                 |

UL Listed to: UL94 (Flame) HF-1 (UL file# QMFZ2.E55798) at 1.5 mm minimum thickness Note 1: On approved source list for GMW 17408 Class I Type IV. Applications: Interior & exterior applications.

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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.

