



Density 4.0 pcf (64.1 kg/m<sup>3</sup>)  
Maximum Loading 5.0 psi (34.5 kPa)  
Color Black



**ETHAFOAM™**  
packaging products

## ETHAFOAM™ M3 Polyethylene Foam

ETHAFOAM™ M3 polyethylene foam is a strong, resilient, medium-density 4.0 pcf (64.1 kg/m<sup>3</sup>), closed-cell foam. It is specially designed to meet the stringent military and blowing agent requirements (less than 10% LEL), and is an excellent material for cushioning components in packaging applications for loadings up to 5.0 psi (34.5 kPa).

ETHAFOAM M3 has outstanding dimensional stability and recovery characteristics that provide optimal cushioning protection against repeated impacts. To achieve optimum performance, Dow recommends that qualified packaging engineers design the total packaging solution.

**Size Available in Black (Planks):**  
2" x 24" x 108"

### Product Features

ETHAFOAM™ M3 polyethylene foam is a durable, lightweight, flexible, solid extruded product. The foam meets or exceeds the requirements in CID A-A-59136, Class 1, Grade A, Type III, and PPP-C-1752D, Type III, Grade A. As the properties listed on the reverse suggest, ETHAFOAM M3 offers excellent strength, resistance to creep under load, vibration and shock absorbency, and water resistance characteristics. ETHAFOAM M3 is part of an exclusive family of ETHAFOAM military packaging products that also includes ETHAFOAM™ M1, ETHAFOAM™ M1 AS, ETHAFOAM™ M1 FR/AS, ETHAFOAM™ M4 and

ETHAFOAM™ M5. Each of these products has been designed and formulated to consistently meet the stringent shipping, storage and handling requirements for military applications.

ETHAFOAM M3 is produced with Dow's patented *RapidRelease* manufacturing process. *RapidRelease* technology delivers a higher quality product with improved dimensional stability and safety. This process technology incorporates a patented CFC- and HCFC-free blowing agent system and an accelerated curing system that reduces residual blowing agents in ETHAFOAM products to trace amounts.

ETHAFOAM M3 meets the requirements of the U.S. Clean Air Act Amendments. It is easily fabricated, impervious to most chemicals, non-abrasive and performs consistently over a wide range of temperatures.

ETHAFOAM M3 is also reusable and completely recyclable because it is made of non-crosslinked polyethylene.

### Flammability

ETHAFOAM™ M3 polyethylene foam has successfully passed FMVSS 302 flammability testing, conducted according to the U.S. Code of Federal Regulations, CFR 49.

# ETHAFOAM

## Product Information

### Physical Properties of ETHAFOAM™ M3 Polyethylene Foam

| Physical Properties <sup>1</sup>                       | Test Method                                                                 | Direction | Value                                                                                |
|--------------------------------------------------------|-----------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------|
| Density                                                | ASTM D3575, Suffix W,<br>Method B; ISO 845                                  |           | pcf (kg/m <sup>3</sup> )<br>4.0 (64.1)                                               |
| Blowing Agent Content                                  | Dow Method                                                                  |           | < 10% LEL                                                                            |
| Compression Set                                        | ASTM D3575, Suffix B,<br>(50% compr.);<br>EN/ISO 1856<br>(23°C, 25% compr.) | Vertical  | < 15%<br>< 5%                                                                        |
| Compressive Creep<br>(1000 hrs @ 73°F [23°C])          | ASTM D3575, Suffix BB                                                       | Vertical  | < 10% @ 5.0 psi<br>(34.5 kPa)                                                        |
| Compressive Deflection<br>@ 10%<br>@ 25%<br>@ 50%      | ASTM D3575, Suffix D                                                        | Average   | psi (kPa)<br>17 (117)<br>19 (131)<br>32 (221)                                        |
| Thermal Stability                                      | ASTM D3575, Suffix S;<br>ISO 2796                                           |           | < 1%                                                                                 |
| Thermal Conductivity<br>@ 75°F (24°C)<br>@ 23°F (-5°C) | ASTM D3575, Suffix V;<br>EN 28301; ISO 2581                                 | Vertical  | BTU·in/hr·ft <sup>2</sup> ·°F<br>(W/m <sup>2</sup> ·K)<br>0.42 (0.06)<br>0.37 (0.05) |
| Water Absorption                                       | ASTM D3575, Suffix L                                                        |           | lb/ft <sup>2</sup> (kg/m <sup>2</sup> )<br>0.2 (1.0)                                 |
| Buoyancy                                               | ASTM D3575, Suffix AA                                                       |           | pcf (kg/m <sup>3</sup> )<br>58 (930)                                                 |
| Tensile Strength @ peak                                | ASTM D3575, Suffix T;<br>ISO 1798                                           | Average   | psi (kPa)<br>50 (345)                                                                |
| Tensile Elongation                                     | ASTM D3575, Suffix T;<br>ISO 1798                                           | Average   | 70%                                                                                  |
| Tear Strength                                          | ASTM D3575, Suffix G                                                        | Average   | lb/in (N/mm)<br>19 (3.7)                                                             |

<sup>1</sup>The data presented for this product are for unfabricated ETHAFOAM polyethylene foam products. While values shown are typical of the product, they should not be construed as specification limits.

*For information on products, design assistance  
and testing services available from Dow, contact us at:  
1-866-PKG-FOAMS (754-3626) or [www.ethafoam.com](http://www.ethafoam.com)*

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WARNING: ETHAFOAM polyethylene foam products are combustible and may constitute a fire hazard if improperly used or installed. During transportation, storage, installation and use, these products should not be exposed to open flame or other ignition sources.

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