Performance Foams

ETHAFOAM M1 A/S

Brand Polyethylene Foam Plank

ETHAFOAM* M1* A/S polyethylene foam is a strong, resilient, medium-density 36 kg/m^3 (2.3 pcf), closed-cell foam. It contains internal anti-static agents designed to eliminate static-potential from the foam itself, and to dissipate electro-static discharges from other sources.

The foam is ideally suited as a component material in products requiring a shock absorbing, vibration dampening, insulating, barrier, or buoyancy component, and as a material for cushioning components in packaging applications for impacts or loadings up to 2.5 psi.

ETHAFOAM M1 A/S polyethylene foam extruded plank is a part of an exclusive family of the ETHAFOAM brand polyethylene foam packaging products that also includes ETHAFOAM M1, M3*, M4* and M5* polyethylene foams. Each of these products has been designed and formulated to consistently meet the stringent shipping, storage and handling requirements for military applications.

ETHAFOAM M1 A/S polyethylene foam is a PPP-C-1752D, Type I, Grade B material.

Size available (Planks):
2" x 48" x 108'

Color available: Pink

Physical Properties†	Test Method	Direction	Value
Density	ASTM D3575, Suffix W, Method B; ISO 845		kg/m^3 (pcf) 36 (2.3)
Blowing Agent Content	Dow Method		< 10% LEL
Static Decay Rate	EIA 541; US Federal Test Standard 101C Method 4046.1		< 2 sec
Surface Resistance	ANSI/EOS/ESD-S11.11-1993 Measured on plank surface		< 10^{11} ohms
Surface Resistively	EIA 541; ASTM D257; DIN 53 482 Measured on plank surface		< 10^{12} ohms/square
Compression Set	ASTM D3575, Suffix B (50% compr.) EN/ISO 1856 (23 C, 25% compr.)	Vertical	< 20% <10 %
Compressive Creep (1000 hrs @ 23^0 C)	ASTM D3575, Suffix BB	Vertical	< 10% @ 17.5 kPa (2.5 psi)
Compressive Deflection @ 10% @ 25% @ 50%	ASTM D3575, Suffix D	Average	KPa (psi) 50 (7) 65 (9) 124 (18)
Thermal Stability	ASTM D3575, Suffix S ISO 2796		< 1.5% < 2%
Thermal Conductivity @ 24°C (75°F) @ -5°C (23°F)	ASTM D3575, Suffix V; EN 28301; ISO 2581	Vertical	W/m°K (BTU-in/hr-ft^2-°F) 0.06 (0.4) 0.05 (0.3)
Water Absorption	ASTM D3575, Suffix L ISO 2896; ASTM C272		kg/m^2 (lb/ft^2) 1.5 (0.3) < 3 vol %
Buoyancy	ASTM D3575, Suffix AA		kg/m^3 (pcf) 930 (58)
Tensile Strength @ peak	ASTM D3575, Suffix T; ISO 1798	Average	kPa (psi) 220 (32)
Tensile Elongation	ASTM D3575, Suffix T; ISO 1798	Average	50%
Tear Strength	ASTM D3575, Suffix G	Average	N/mm (lb/in) 1.8 (10)

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

– *See reverse side for additional properties and product information*

Product Features
ETHAFOAM "M" series polyethylene foam products provide the perfect performance solution for projects requiring polyethylene foam where compliance to U.S. Federal Standard PPP-C-1752D is preferred. The result is a product line that satisfies exacting military packaging demands for long-term product protection, and also eliminates the concern of creating a flammable atmosphere in military closed case applications. ETHAFOAM M1, M1 A/S, M3, M4 and M5 polyethylene foams are intended for applications calling for Types I, III, IV and V material under PPP-C-1752D.

The new ETHAFOAM "M" series polyethylene foam products are produced with Dow's patented *RapidRelease* manufacturing process. This new process technology incorporates a patented CFC and HCFC-free blowing agent system and an accelerated curing system that reduces the residual blowing agents in all "M" series polyethylene foam products to less than 10 percent of the lower flammability limit (LFL). Certification of physical properties and blowing agent content is available upon request.

The "M" series polyethylene products offer the same cushioning properties that have earned other ETHAFOAM brand polyethylene foam products the highest marks throughout the protective packaging industry. These new products are resilient, durable, lightweight, flexible and resist compressive creep. They're reusable, recyclable and meet the requirements of the U.S Clean Air Act Amendments. In addition they're easily fabricated, impervious to most chemicals, low abrasive and may be used over a wide range of temperatures.

Flammability
ETHAFOAM M1 polyethylene foam has successfully passed MVSS 302 flammability testing, conducted according to the U.S. Code of Federal Regulations, CFR 49.

CAUTION:
ETHAFOAM M1 polyethylene foam plank is combustible and should not be exposed to flame or other ignition sources.

For Additional Information or Technical Support
For information on products, design assistance and testing services available from Dow, in North America call 1-800-441-4369; in Europe call +49-7227-91-4101.

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The Dow Chemical Company, 200 Larkin Center, Midland, MI 48674, USA
Dow Deutschland GmbH & Co. OHG, Industriestraße 1, D-77836 Rheinmünster, Germany

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