



# FMI-EPS FORMPak...

The Solution to Custom Packaging Applications

**Good Packaging needs to be cost effective  
and withstand the perils of shipping.**

Shape Molded EPS-FORMPak is the perfect packaging material: lightweight, highly resilient, flexible, moisture resistant, requires no assembly and is an economically low material cost for packaging designs.



## Shape Molded FORMPak

FMI-EPS's state-of-the-art shape molding equipment has the capacity for the correct shape, density and quantity that you and your customers require.

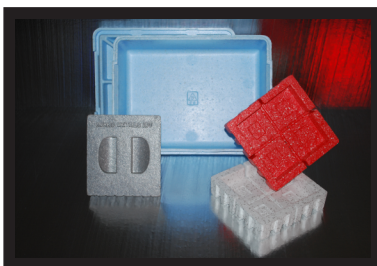
In the shape molding process, expanded polystyrene beads are blown into a cavity mold where they further expand and fuse to form the exact shape of the mold. Shape Molded EPS-FORMPak is ideal when large, repetitive quantities are required. EPS can be molded into multiple shapes, dimensions and cavities which allows you more options for your packaging and shipping needs, while keeping weights down.

We offer design assistance, as well as prototype sampling, in developing the optimum packaging solution to meet the needs of your customer.

FMI-EPS also offers the option of molding specialty foam like Arcel, R-Mer and Expandable Polyethylene resins, which provide a greater balance of flexibility and strength. These specialty foams allow for puncture resistance and are reusable.

## Shape Molded FORMPak Benefits:

- Shape mold into almost any shape • Available in a wide range of densities •
- Unlimited part configuration • Non-abrasive - will not damage finishes
- Extremely Lightweight - reducing shipping costs • Excellent protection and cushioning
- Ease of handling, increases efficiency • Reduces labor
- Stable R-Value for thermal protection for sensitive products, no thermal bridging
- Moisture resistant, water does not weaken EPS
- EPS contains NO CFCs, HCFCs, HFCs, dyes or formaldehyde
- EPS is recyclable



**Made with colored  
resin and recyclable.**



Since our origin in 1993, we have been Shape Molding, Fabricating, Cutting and Laminating EPS Foam. We believe that Quality, Service and Prompt Delivery are the most important aspects of support that we can provide you and your customers.

**FMI-EPS...We're small enough to know you...  
Large enough to serve you**

## **Fabricated FORMPak...** If you can draw it we can produce it

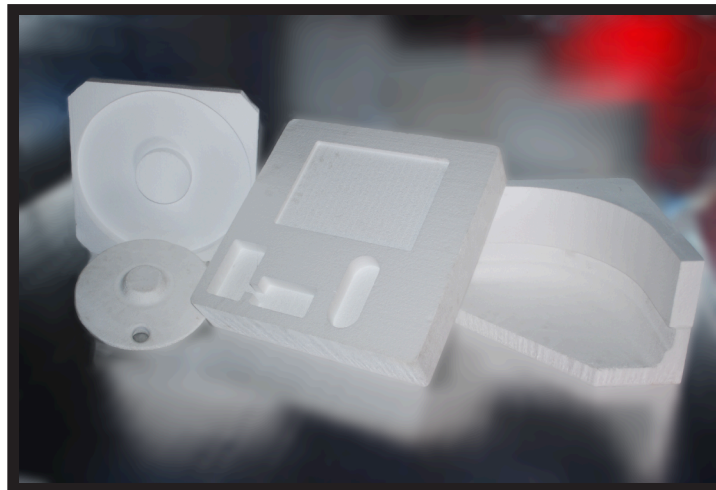


FMI-EPS can provide Custom Fabricated FORMPak for your package design. EPS components are manufactured using a Computerized Hotwire or CNC machine, which can produce precision cut parts from your drawings and specification. Fabricated FORMPak is an extremely versatile and cost effective solution for your packaging application, in small or large quantities, with no expensive tooling or start-up costs required.

Fabricated FORMPak is amazingly strong, lightweight while providing cushioning, protection and is environmentally safe.

### **The Packaging of parts and products is always changing.**

Custom Fabricated Expanded Polystyrene (EPS) is the perfect packaging material: lightweight, highly resilient, flexible, moisture resistant, profile custom cuts can be easily changed or revised, extremely versatile and no start up costs.



#### **Fabricated FORMPak Benefits:**

- Short lead time • Available in a wide range of densities • Unlimited part configuration
- Ability to produce 3-Dimensional shapes • Non-abrasive - will not damage finishes
- Extremely Lightweight - reducing shipping costs • Excellent protection and cushioning
- Ease of handling, increases efficiency • Reduces labor
- Stable thermal protection for sensitive products
- Moisture resistant, water does not weaken EPS
- Made with recycled content and is recyclable
- EPS contains NO CFCs, HCFCs, HFCs, dyes or formaldehyde

# **FMI-EPS'S FORMPak...** products are 100% recyclable

FMI-EPS's staff and owners have been practicing environmentally friendly manufacturing for over 30 years, before **GREEN** meant anything.

Excess and scrap EPS generated during the manufacturing process, is ground and incorporated into new EPS products that we sell. EPS Foam is the only rigid insulation and packaging on the market with recycled content to it. Finished EPS products are easily recyclable and can be turned into polystyrene resin to make new products such as coat hangers, disposable cameras, garden furniture, trim and moldings.



We also recycle EPS FORMPak back into packaging cubes ( 1/2" x 1/2" x 1") for use as a loose fill.

"Think Green...Use ...White EPS"



We have the capability to recycle EPS FORMPak into small bead form, which can be used for stuffing old bean bag chairs. Recycled EPS can also be used for filling and insulating concrete masonry blocks.

**FMI-EPS** is committed to providing you and your company with products and service of the highest quality. Your continued satisfaction is our top priority. We would like to thank those designers, distributors, purchasing managers and businesses who care about our environment and have supported FMI-EPS, LLC by specifying and using our recycled **EPS FORMPak** products.





## FMI-eps'S FORMPak... is fully supported

FMI-eps's comprehensive design, manufacturing and delivery team will work with you and your customer to develop the most cost effective solution to your packaging requirements.

We will work with you to determine the right criteria: density, physical property strengths, part thickness, load bearing requirements, handling, shipping logistics and proto type samples for field testing.

### Technical Data

EPS FORMPak meets or exceeds physical and thermal property standards as established in ASTM C 578

Physical Properties	Units	ASTM Test	Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV
Compressive Resistance at 10% Strain Deformation (2" cube)	Min psi (kPa)	D 1621, C 165	5.0 (35)	10.0 (69)	13.0 (90)	15.0 (104)	25.0 (173)	40.0 (276)	60.0 (414)
Flexural Strength	Min psi (kPa)	C 203	10.0 (70)	25.0 (173)	30.0 (208)	35.0 (240)	60.0 (414)	75.0 (517)	75.0 (517)
Tensile	psi	D1623		16	17	18	23		
Shear	psi	D732		18	23	26	33		
Shear Modulus	psi			280	370	460	600		
Thermal Resistance (R-Value)* 75 ± 2° F (24 ± 1° C) 40 ± 2° F (4.4 ± 1° C)	Min R* for 1" thickness	C 177, C518	3.1 (0.55) 3.3 (0.59)	3.85 (0.67) 4.17 (0.0)	3.92 (0.69) 4.25 (0.74)	4.17 (0.73) 4.55 (0.77)	4.35 (0.76) 4.76 (0.80)	4.2 (0.74) 4.6 (0.80)	4.3 (0.76)
Thermal Conductivity (K-Value)* 75 ± 2° F (24 ± 1° C) 40 ± 2° F (4.4 ± 1° C)	BTU/(hr)(Sg.Ft.)(F/in.)	C 177, C518	0.323 (1.82) 0.303 (1.70)	0.260 (1.48) 0.240 (1.37)	0.255 (1.46) 0.235 (1.35)	0.240 (1.37) 0.220 (1.26)	0.230 (1.31) 0.210 (1.20)	0.238 (1.35) 0.217 (1.25)	0.233 (1.33)
Coefficient of Thermal Expansion	In./(In.)(F)	D 696	0.000035	0.000035	0.000035	0.000035	0.000035	0.000035	0.000035
Moisture Resistance Water Absorption by total immersion	% by volume Max	C 272	<4.0	<4.0	<3.0	<3.0	<2.0	<2.0	<2.0
Water Vapor Permeability of 1" (25.4 mm) thickness max perm	Max perm/in (ng/PA*s*m²)	E 96	5.0 (287)	5.0 (287)	3.5 (201)	3.5 (201)	2.5 (143)	2.5 (143)	2.5 (143)
Oxygen Index	Min Volume %	D 2863	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Dimensional Stability (Change in dimensions)	Max %	D 2126	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Max. Service Temperature Long Term / Intermittent	F		167 / 180	167 / 180	167 / 180	167 / 180	167 / 180	167 / 180	167 / 180
Density, minimum Density, nominal	Min lb/ft³ (kg/m³) lb/ft³	C 303	0.70 (12) 0.75	0.90 (15) 1.00	1.15 (18) 1.25	1.35 (22) 1.50	1.80 (29) 2.00	2.40 (38) 2.50	2.85 (46) 3.00

\*R means resistance to heat flow. The higher the R-value, the greater the insulating power.

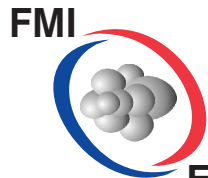
Federal Trade Commission requires; using the R-Value publication at 75°F temperature when calculating R-Values of all insulations. Aged R-Values of alternative products should be compared to determine long term benefit. Some types of insulation lose their R-Value over time.

FMI-eps has a flame spread index of 20 and a smoke developed index of 150-300 when tested in accordance with ATSM E84/ 723 for densities from 0.7 - 2.0 lb/ft³.



The information in this bulletin is presented in good faith, and is believed to be accurate. All statements are made without warranty expressed or implied.

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