



COMPONENT FOAM

Armacell Profiles

Armacell offers a wide selection of elastomeric and polyolefin standard profile shapes and custom foam profile options for your application. EnsoLine® and OleCell® extruded foam profile shapes can be produced in tubes, solid rods and specialized shapes in continuous lengths or cut to size.

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MAKING A DIFFERENCE AROUND THE WORLD

Any Way, Shape or Form

Armacell has the technology to shape the future

“Profiles” are extruded foam shapes produced in tubes, solid rods and specialized silhouettes. They are made in continuous lengths or can be cut to a desired consistent length. Profiles are often used as protective packaging on fragile goods such as glass, stone or metal that could be easily damaged, especially in transit. You’ll find profiles used for child safety purposes to protect people, young and old, from sharp edges or dangerous corners. They are also ideal for ergonomic grips and shapes used in physical or occupational therapy. Armacell has a wide range of capabilities to make the profile you want in almost any shape or form.

ELASTOMERIC FOAM

Our elastomeric or rubber-based **EnsoLine**® products are high-performance foam formulations that meet stringent physical and chemical property requirements. This closed-cell foam can be manufactured in densities for specific physical properties engineered for ergonomic grips on fitness machines and therapeutic equipment as well as in industrial and automotive applications.

POLYOEFIN FOAM

OleCell® products are made from polyethylene thermoplastic polymers that can be extruded into customizable profile shapes in tubes and solids. It is closed-cell, extremely lightweight and 100% recyclable. Common uses include packaging, recreation, flotation, protection, gap fillers and vibration control.



ARMACELL PROFILES



MANUFACTURING CAPABILITY

- // **Profile and Die Design**
- // **Many Formulations**
 - Additives – FR, UV
 - Colors
 - Wide range of densities
 - Compression Recovery
 - Tensile Strength
- // **In-Line Gluing**
- // **Notching**
- // **Welding**
- // **Labeling**
- // **Spooling**
- // **Private Label**
- // **In House Testing**
- // **Independent 3rd Party Testing**
- // **PE Manufacturing**
 - Yukon, OK
 - Brampton, Ontario Canada
- // **Elastomeric Manufacturing**
 - Conover, NC
- // **All Armacell facilities in North America are ISO 9001 certified**

PROFILES APPLICATIONS

- // **Packaging**
 - Impact resistance
 - Edge protection
- // **Flotation**
 - Pool toys
 - Oil boom
- // **Construction**
 - Gap fillers
 - Expansion joints
- // **Fitness and Recreation**
 - Play/sport padding
 - Exercise rollers
 - Therapeutic shapes
- // **Furniture/Equipment**
 - Furniture cushioning
 - Bedding components
 - Ergonomic grips
- // **Protection**
 - Corner protectors
 - Bumper guards
- // **Transportation**
 - Sound absorption
 - Vibration management



OleCell profiles can be produced in a wide range of colors and shapes.



OleCell Profiles



Armacell has many dies available for standard requests, or we can design one to your specifications.

OleCell (PE) Profiles Capabilities

Size Range	OD: 0.374" - 6" (9mm - 152mm)	
Tube		
Size Range Solids:	OD: 0.374" - 6" (9mm - 152mm)	
Size Range Tubes:	ID's starting at 0.125" (3mm) OD's up to a maximum of 6" (152mm). Please contact us with your specifications.	
Profiles	Max. Cross-sectional Area: 28 in ²	
Density	1.1 - 9 lb/ft ³	
Stock Colors:	Black, Grey, White, Yellow, Orange, Purple, Red, Blue, Lime Green (No custom color matching)	
Tolerance ID/OD*		
	Less than 1" (25mm)	+ - 0.040
	1" to <2" (25 to <51mm)	+ - 0.060
	2" to <3" (51 to <76mm)	+ - 0.080
	3" to <5" (76 to <127mm)	+ - 0.150
	5" or greater (127mm)	+ - 0.200
Tolerance Length*		
	0 to < 6" (0 to 152mm)	+ - 0.375
	6" to < 12" (152 to <305mm)	+ - 0.500
	12" to < 36" (305 to <914mm)	+ - 0.625
	36" to < 72" (0.914m to <1.83m)	+ - 1.000
	72" or greater (1.83m)	+ - 1.500

*Tolerances may vary for custom shapes

EnsoLine Profiles



EnsoLine elastomeric profiles are available for a multitude of purposes.

EnsoLine (Elastomeric) Profiles Capabilities

Size Range	Nitrile PVC (Grip)	Nitrile PVC (Crushed)	EPDM
Solid Cord/Rod	0.375 - 2.5" (9.5mm-63mm)	0.375 - 2.5" (9.5mm-63mm)	0.375 - 2.5" (9.5mm-63mm)
Tube	Min. ID .025" (6.35mm) Min. Wall .098" (2.5mm) Min. Wall .098" (2.5 mm)	Min. ID .025" (6.35mm) Min. Wall .098" (2.5mm)	Min. ID .025" (6.35mm) Min. Wall .098" (2.5mm) OD : 0.400" - 3" (10mm- 76mm)
Profiles	Min. Wall .098" (2.5 mm) Max OD 3.625" (92.075 mm)	Max OD 3.625" (92.075 mm)	Min. Wall .098" (2.5 mm) Max OD 3.625" (92.075 mm)
Density	7 - 35 lb/ft ³	4 - 8 lb/ft ³	10 - 26 lb/ft ³
Stock Colors	Black, Off-white, Plum, Yellow, Orange, Turquoise, Lime Green, Green, Spring Green, Pink, Red, Blue, Dark Blue, Bright Blue, Aqua, Metallic Blue, Light Gray, Medium Gray, Dark Gray, Brown (No custom color matching)	Black Only	Black Only
Tolerance ID/OD*	Inches 0.125-0.175 0.225-0.375 0.425-0.700 0.800-1.400 1.500-2.000	(mm) 3.17-4.44 5.71-8.26 9.52-17.78 20.32-35.56 38.1-50.8	Tolerance +/- 0.039 0.045 0.06 0.065 0.07
Tolerance Wall*	Inches 0.125 0.175 0.225 0.275-0.900 1	(mm) 3.17 4.44 5.71 6.98-22.86 25.4	Tolerance +/- 0.035 0.040 0.050 0.060 0.065
Tolerance Length*	Inches 2-3 4-15 20-40 45-60	(mm) 0.078-0.118 0.157-0.590 0.787-1.58 1.772-2.36	Tolerance +/- 0.375 0.5 0.75 1

*Tolerances may vary for custom shapes

Keeping a High Profile

// WHAT IS EXTRUDED FOAM?

Extrusion is the process of pushing a heated material through a die for the purpose of creating a specific shape or profile. In foam extrusion, heated polyethylene or rubber is pushed through a very small hole, or die, like a thread through a needle. As it cures, this foam "thread" expands up to 20 times the original size, creating a profiled shape.

// STANDARD PROFILE SHAPES

Armacell offers a wide range of standard foam profile options. Our profiles include a vast array of shapes, densities and colors including tubes, rods, cords, planks, elbows and other custom shapes.

// CUSTOM ORDERS

Looking for a foam with a specific shape or properties? We may be able to develop one designed especially for your application. A custom order requires our technical engineers to develop a new die that fits the exact requirements of your request. The cost of a sample run will be included in your quotation and you will be able to approve the samples before it goes into production. Ask your Armacell sales rep about minimum order quantities and lead times. If you need help to find products that meet your requirements, contact one of our Technical Managers with specific questions for your product or application.



Why Armacell?

Armacell is the global leader in expanded cellular foam products delivering decades of product knowledge and innovation to our partners in the sport, transportation, industrial and construction markets.

// PRODUCT RANGE

As the experts in elastomeric and polyethylene foam production, Armacell has the widest capability in the industry, making a huge range of foam formulations for a variety of uses.

// LOGISTICS NETWORK

Armacell operates 6 manufacturing facilities in the US and Canada. Our plants and warehouses can service every region of North America and can handle international orders.

// TECHNICAL EXPERTISE

Take advantage of Armacell's world class technical support, with experienced Technical Managers to help you with specifications and product development. international orders.



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ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic 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 3,135 employees and 24 production plants in 16 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

For More Information:
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