



JUANA BIOTECHNOLOGY BROCHURE



PU Foam Production Process: in sheet or in roll (Vedio could be offered)



Juana Foam factory has long manufacturing experience with stable quality control.

Foaming-stablizing-cutting-packing. slow rebound foam, high& low density foam, can be molded into many shapes.

Foam type: High resilience PU foam, Lower resilience PU foam, Open cell light PU foam, Poured PU, Plant based pu foam, Algae Foam, Recycled Foam, Memory foam, Water absorbent foam, Activated carbon foam, 3D Foam, Latex and EVA foam sheet etc.





Shock Absorption Foam(PFUD30)

What is PFUD30:

D30 is a polymer fluid material: it is a single impact-resistant material composed of "smart molecules" (compounded by viscose and a polymer). Can be combined with pvc, eva, rubber, epg in production



Feature:

Under normal conditions, the material is soft and elastic. Once it encounters a high-speed collision or squeeze, the molecules immediately lock each other and become hard to digest external forces. When the external force disappears, the material will return to its original flexible state. It has a strong ability to absorb impact and can absorb 90% of the energy generated in a high-speed collision. This product is suitable for sports goods, medical and health, outdoor products, precision electronic products and other applications that require protection, comfort and stable performance.



Shock Absorption Foam(PFUD30)



Physical Property:

1. Lightweight and flexible, so you can say goodbye to the old-style hard and bloated protective liner.
2. Use air-permeable closed-cell technology to make meticulous work.
3. Antibacterial protection can inhibit the growth of bacteria and avoid the resulting stains and odors.



Shock Absorption Foam(PFUD30)



Offering: Can provide liquid raw materials, foamed sheets and finished products with special shapes according to customer needs.

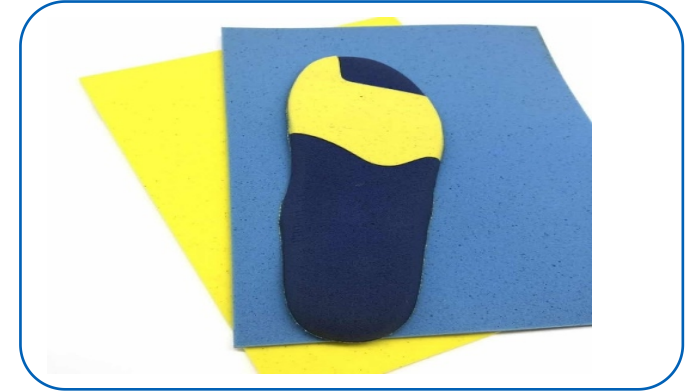
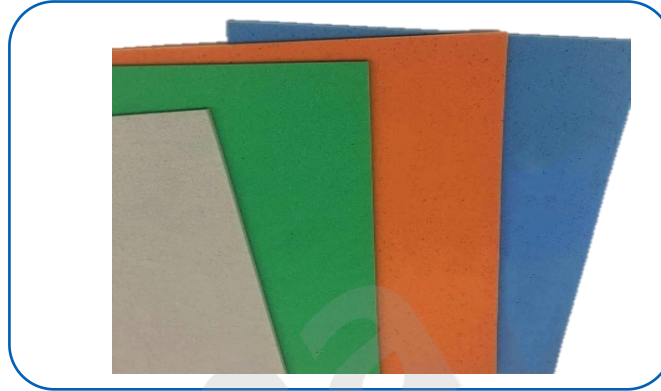
Temperature: could be used in minus 4 degrees to 122 degrees.
If the temperature is too low, the D3O material will become brittle, and if the temperature is too high, the mud will become thinner.

Usage life: 2~3 years, depends on the use scene such as impact rate, pressure and use environment.



High Resilience Foam(Ortholite foam)

Technical Parameters



Item Name	High Resilience Foam		
Density	80-350KG/M ³	Antibacterial Properties	Over 99%
Hardness	5-45 Asker C	Permanent Deformation	Less than 10%
Certificate	ISO9001,REACH SVHC	3 SIZE(L*W)	1.15M*2M
Color	Any Pantone Color		1.4M*2M
Feature	Breathable		1.5M*2M
Type	It depend on the data of thickness,density and hardness,customize it match you need	Height(H)	2MM-150MM(Can Be Customized)
Performance	Moisture Wicking,Anti-slip Wear,Mildew Resistant and Washable	Variety	Various Type and Support Customization



Open Cell PU Light Foam

**JNT90****JNT60****JNT80****JNT818**

ITEM	DETECTION METHOD	UNIT	JNT60	JNT80	JNT90	JNT818
DENSITY	ASTMD-2240	(kg/m ³)	45-52	75+/-5	85+/-5	95-105
HARDNESS	ASKER-F		85-95	85-95	90+/-5	80-85
TENSILE	ASTMD-412		2.5↑	3.2↑	3.8↑	2.0↑
ELONGATION	ASTMD-412	(%)	110 ↑	105 ↑	105 ↑	105 ↑
TEARING	ASTMD-412	(kg/cm)	0.7 ↑	0.7 ↑	0.9 ↑	0.5 ↑
COMPRESSION SET	ASTMD-395	(%)	5↓	5↓	5↓	5↓
REBOUND TEST	ASTMD-3574-81	(%)	15-18	35-40	38-40	15-18



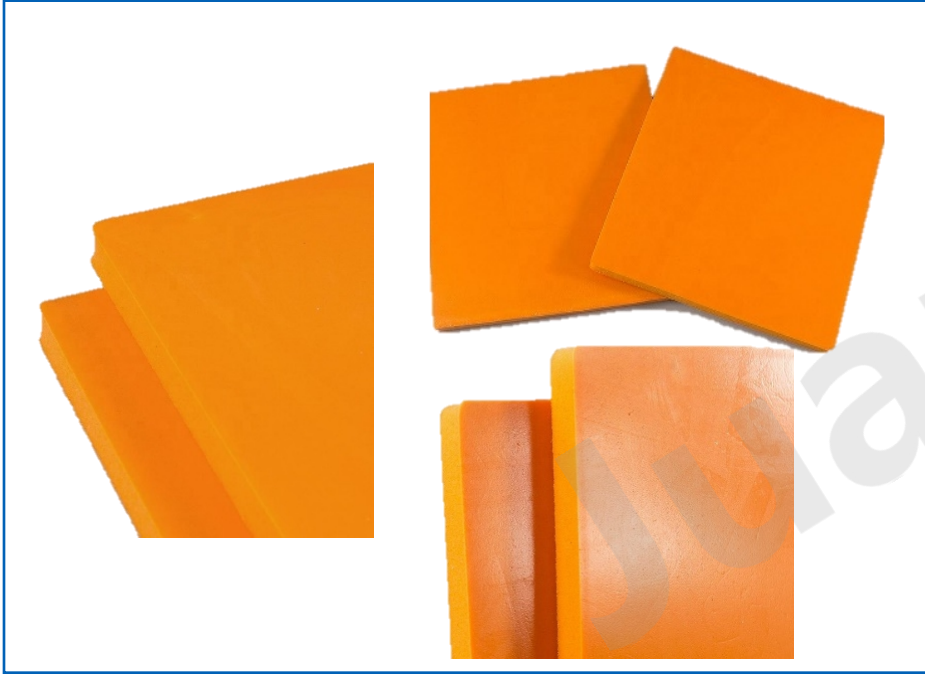
Open Cell PU Light Foam II

Ordering Information

Item Name	Open Cell PU Foam			Features and benefits: 1.Low-density 2. Flexible 3. Ultra-lightweight 4. Eco-friendly
Density	30-150KG/M ³	Antibacterial Properties	Over 99%	
Hardness	16-90 Asker F/ 10-20Asker C	Permanent Deformation	Less than 10%	
Certificate	ISO9001,REACH SVHC	3 SIZE(L*W)	1.17M*25M/ 30M/ 40M/ 50M	
Color	Any Pantone Color/ Custom		1.27M*25M/ 30M/ 40M/ 50M	
Feature	Breathable		1.47M*25M/ 30M/ 40M/ 50M	
Type	It depend on the data of thickness,density and hardness,customize it match you need	Height(H)	2MM-150MM (Can Be Customized)	
Performance	Anti-bacteria,Anti-odor,shock absorption.supper good breathable ability	Variety	Various Type and Support Customization	



Poured PU Foam



Item Name	Poured PU Foam		
Density	90-160KG/M ³	Antibacterial Properties	Over 99%
Hardness	5-45 Asker C	Permanent Deformation	Less than 10%
Certificate	ISO9001, REACH SVHC	3 SIZE(L*W)	1.15M*2M
Color	Any Pantone Color/ Custom		1.4M*2M
Feature	Breathable		1.5M*2M
Type	It depend on the data of thickness,density and hardness,customize it match you need	Height(H)	2MM-150MM (Can Be Customized)
Performance	Anti-bacteria, Anti-odor, shock absorption, super good breathable ability	Variety	Various Type and Support Customization

Features and benefits:

1. The direct injection process pushes liquid PU into a closed mold, creating an outsole around the shoe. This creates a very strong bond between the outsole and shoe. Due to the high extrusion pressure the PU gets a good grain structure and obtains good physical properties.
2. The material itself is **relatively flexible**, and it has the advantages of insulation, compression, and the PU material itself is sticky, so it is not easy to slip in the shoes. It is very important that PU material has **very good shock absorption performance**.



Plant Based PU foam(Biofoam)



Plant Based Foam-3616

Origin: Natural Plant polyol is extracted from fatty acids and glycerol from plants like: coconut, corn, soybean pure natural plant fruit, seeds, germs. Finally compose the vegoil polyols recycled foam.

ITEM	DETECTION METHOD	UNIT	3616
DENSITY	ASTMD-2240	(kg/m ³)	120+/-5
HARDNESS	701-N		15+/-3
TENSILE	ASTMD-412		3 ↑
ELONGATION	ASTMD-412	(%)	60 ↑
TEARING	ASTMD-412	(kg/cm)	0.8 ↑
COMPRESSION SET	ASTMD-395	(%)	2 ↓
REBOUND TEST	ASTMD-3574-81	(%)	25 ↑

Features and benefits:

1. Ordinary foam are non-degradable and difficult to recycle. Natural plant Polyols recycled foam are degradable, reduce pollution, and have natural environmental protection characteristics.

2. The physical properties are the same, but the natural plant polyols foam resilience is better.

Plant Based PU foam(Biofoam)

- Natural Plant Polyol is compatible with Methylene Chloride and pure water-blown formulations.
- Plant Polyol offers improved cream and tack-free time versus other natural polyols. Plant Polyol contains a BHT-free Antioxidant to reduce scorching and mis-colouration





Plant Based PU foam(Biofoam)

The new eco-friendly foam based on plant oil raw material(Natural Polyols),which is the first develop in China with real environmental protection and good decomposition function.

Natural Plant polyol is extracted from fatty acids and glycerol from plants like: coconut, corn, soybean pure natural plant fruit, seeds, germs. Finally compose the vegoil polyols recycled foam.

Ordinary PU foam VS Natural Plant Polyols Recycled Foam:

Physical Aspect

The physical properties are the same, but the natural plant polyols foam resilience is better.

Environment Side

Ordinary foam are non-degradable and difficult to recycle. Natural plant Polyols recycled foam degradable, reduce pollution, and have natural environmental protection characteristics.

Fitness Aspect

Natural Plant Polyols are extracted from pure natural plant oil, which is non-toxic and harmless. It is combined with the antibacterial substance and effectively prevent bacteria and fungi.

Heat Conductivity

More stable thermal conductivity





Algae PU foam

Ordering Information:



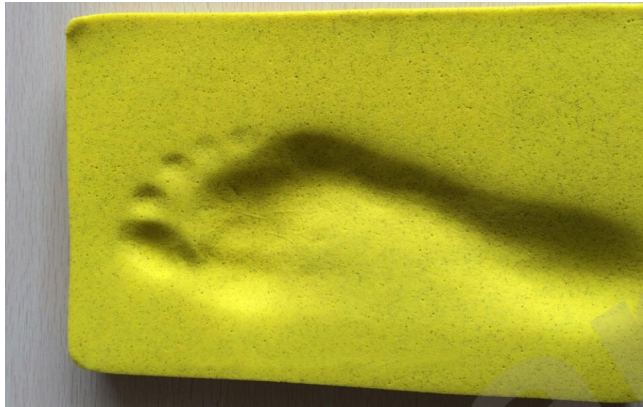
Item Name	Algae PU Foam		
Density	80-350KG/M ³	Antibacterial Properties	Over 99%
Hardness	5-45 Asker C	Permanent Deformation	Less than 10%
Certificate	ISO9001, REACH SVHC	3 SIZE(L*W)	1.15M*2M
Color	Any Pantone Color		1.4M*2M
Feature	Breathable		1.5M*2M
Type	It depend on the data of thickness, density and hardness, customize it match you need	Height(H)	2MM-150MM(Can Be Customized)
Performance	Moisture Wicking, Anti-slip Wear, Mildew Resistant and Washable	Variety	Various Type and Support Customization

Features and Benefits:

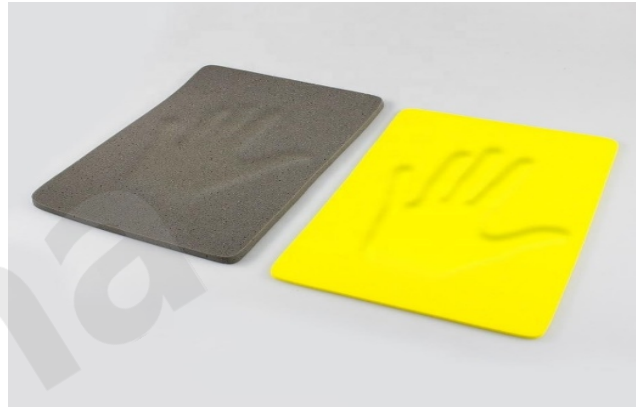
1. The new eco-friendly foam contains algae as a raw material, which is replaced some chemical.
2. Environmentally friendly and pollution-free. Algae foam can effectively deodorize.
3. Algae foam is biodegradable, while ordinary PU foam is non-biodegradable.



Memory Foam(lazy foam/ Slow rebound foam)



JN051



JN081



JN150

ITEM	DETECTION METHOD	UNIT	JN051	JN081	JN150
DENSITY	ASTMD-2240	(kg/m ³)	45-52	70-80	130-150
HARDNESS	ASKER-F		85+/-5	85+/-5	85-90
TENSILE	ASTMD-412		1.8↑	2.1↑	1.8↑
ELONGATION	ASTMD-412	(%)	100 ↑	100 ↑	100 ↑
TEARING	ASTMD-412	(kg/cm)	0.6 ↑	0.6 ↑	0.5 ↑
COMPRESSION SET	ASTMD-395	(%)	10↓	10↓	10↓
REBOUND TEST	ASTMD-3574-81	(S)	2-4S	2-4S	2-4S



Memory Foam(lazy foam/ Slow rebound foam)

Ordering information

Item Name	Memory PU Foam		
Density	80-350KG/M ³	Antibacterial Properties	Over 99%
Hardness	35-90 Asker F	Permanent Deformation	Less than 10%
Certificate	ISO9001,REACH SVHC	3 SIZE(L*W)	1.17M*25M/30M/40M/50M
Color	Any Pantone Color		1.27M*25M/30M/40M/50M
Feature	Slow Rebound Effect		1.47M*25M/30M/40M/50M
Type	It depend on the data of thickness,density and hardness,customize it match you need	Height(H)	2MM-150MM(Can Be Customized)
Performance	Moisture Wicking,Anti-slip Wear,Mildew Resistant and Washable	Variety	Various Type and Support Customization

Features and benefits:

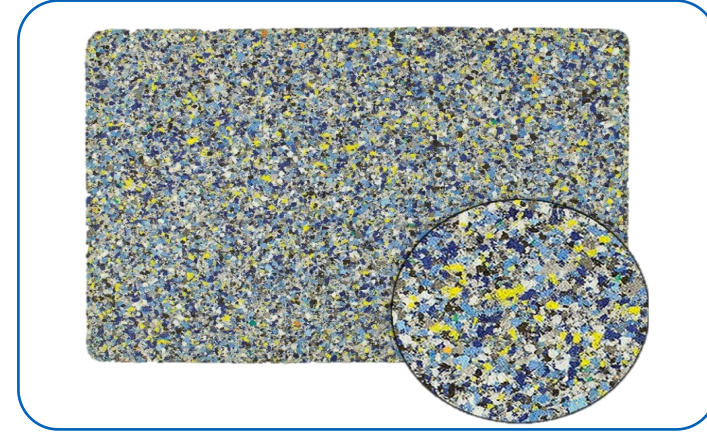
1. Slow rebound
2. Shock Absorption
3. Anti-Bacterial Function
4. Anti-fatigue



Recycled PU foam



Density:200-220 KG/m³
Hardness:25-30 Asker C



Density:350 KG/m³
Hardness:40-45 Asker C

Item Name	Recycled PU Foam		
Density	110-350KG/M ³	Antibacterial Properties	Over 99%
Hardness	20-45 Asker C	Permanent Deformation	Less than 10%
Certificate	ISO9001,REACH SVHC	3 SIZE(L*W)	1.15M*2M
Color	Any Pantone Color/ Custom		1.4M*2M
Feature	Eco-friendly		1.5M*2M



Recycled PU foam Process

Foaming Recipe

Add 30% natural plant polyols+ 25% post-consumer recycled foam + 45% new material

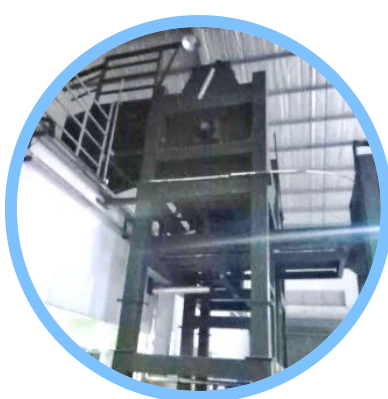
Collect Foam Scrap



Smash Foam Scrap



Stir Foam Powder and Pigment



Inject Into Steaming Barrel



Ripen





Activated Carbon Foam



Code:2515

Item Name	Activated Carbon Foam		
Density	80-350KG/M ³	Antibacterial Properties	Over 99%
Hardness	5-45 Asker C	Permanent Deformation	Less than 10%
Certificate	ISO9001, REACH SVHC	3 SIZE(L*W)	1.15M*2M
Color	Any Pantone Color		1.4M*2M
Feature	Breathable, Absorb harmful substance		1.5M*2M
Type	It depend on the data of thickness,density and hardness,customize it match you need	Height(H)	2MM-150MM(Can Be Customized)
Performance	Moisture Wicking,Anti-slip Wear,Mildew Resistant and Washable	Variety	Various Type and Support Customization

2515 Black dots are modified MDI materials with high resilience feature, and it is eco-friendly.

Black dots are activated carbon.

*Activated carbon can strongly absorb harmful bacteria

*Stimulate blood motivation

*Absorb bad smell



Water Absorbent Foam



Item Name	Polyurethane Water Absorbent Foam		
Density	50-120 KG/M ³	Antibacterial Properties	Over 99%
Hardness	50-80 Asker F	Permanent Deformation	Less than 10%
Certificate	ISO9001, REACH SVHC	3 SIZE(L*W)	1.17M*25M/ 30M/ 40M/ 50M
Color	Any Pantone Color		1.27M*25M/ 30M/ 40M/ 50M
Feature	Breathable, Water Absorbent		1.47M*25M/ 30M/ 40M/ 50M
Type	It depend on the data of thickness,density and hardness,customize it match you need	Height(H)	2MM-150MM(Can Be Customized)
Performance	Moisture Wicking,Anti-slip Wear,Mildew Resistant and Washable	Variety	Various Type and Support Customization



3D foam



3D foam offer good ventilation ability.

Function:

- 1.High density / Lower density
2. Air, breathable
- 3.Open cell foam

Usage: Insoles or pillow or other medical application



3D memory foam is a type of polyurethane foam, which has good slow rebound effect.

Function:

- 1.High density/ Lower density
2. Air, breathable
3. Open cell foam

Usage: Insole or pillow or other medical application



Cooling Feel Foam



ITEM	DETECTION METHOD	UNIT	JN150FD
DENSITY	ASTMD-2240	(kg/m ³)	140±10
HARDNESS	701-N		10-15
TENSILE	ASTMD-412		2.5 ↑
ELONGATION	ASTMD-412	(%)	100 ↑
TEARING	ASTMD-412	(kg/cm)	1.5 ↑
COMPRESSION SET	ASTMD-395	(%)	10↓
REBOUND TEST	ASTMD-3574-81	(%)	25 ↑

JNT150FD-High Rebounded Foam

JNT150FD are modified MDI materials with high resilience feature, and it is eco-friendly. Blue dots are silicone cooling dots.

- *Good compression
- *High density, high rebound, excellent support ability.
- * Mildew resistance and anti bacterial, sweat and moisture absorption. It has cool function because of silicone cooling inside.



ITEM	DETECTION METHOD	UNIT	JN081FD
DENSITY	ASTMD-2240	(kg/m ³)	70-80
HARDNESS	ASKER-F		85+/-5
TENSILE	ASTMD-412		2.1 ↑
ELONGATION	ASTMD-412	(%)	100 ↑
TEARING	ASTMD-412	(kg/cm)	0.6 ↑
COMPRESSION SET	ASTMD-395	(%)	10↓
REBOUND TEST	ASTMD-3574-81	(S)	2-4S

JN081-Memory Foam

JN081FD Blue+ dots are modified MDI materials with slow resilience feature, and it is eco-friendly.

- *Slow rebound
- *Antibacterial
- *Shock Absorption

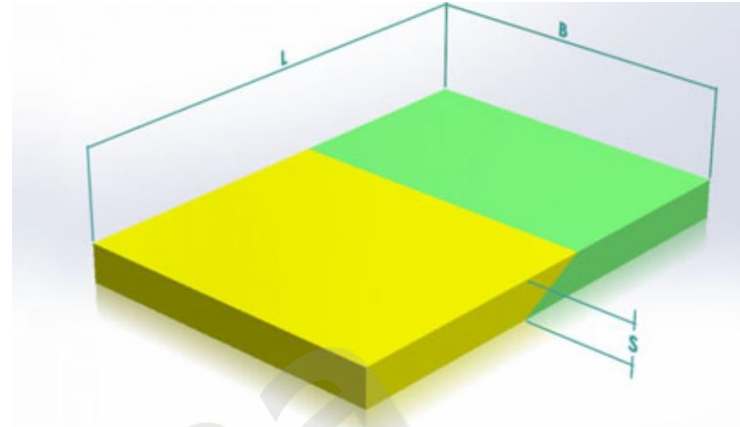
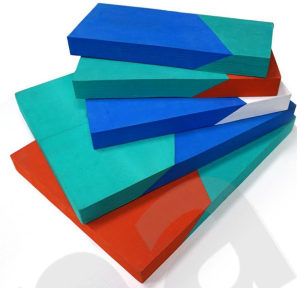


EVA Foam Sheet

Quality: A, B, C Grade
Hardness: see next page

Density: see next page

Resilience: see next page



Lightweight, durable, easy to form, and resists compression set. EVA can be hot pressed, cold pressed, die cut, injected, and machined to make midsoles or inserts. Available in a wide range of densities and formulations, EVA can be pillow soft and flexible or rock hard and stiff. EVA can be made in almost any color. It can be found in all different styles of shoes. EVA is also used to make footbeds, padded Stroble socks, and is often laminated as a fabric backing



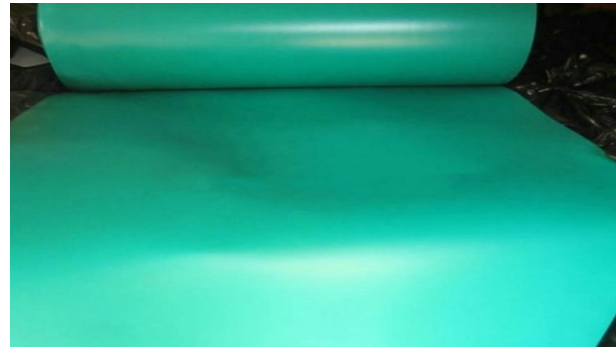
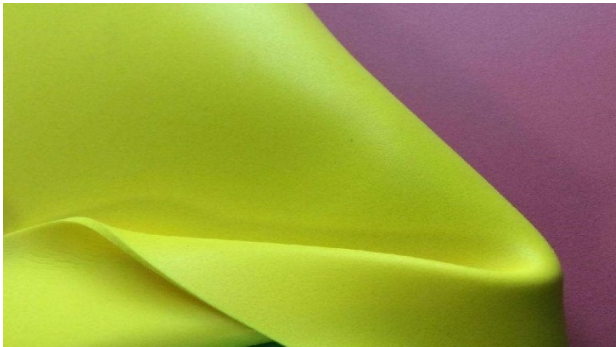
EVA foam Sheet

MODEL	HARDNESS (ASKER TYPE C) ASTM D2240	DENSITY (G/CM ³) ASTM D1817	SHRINKAGE (%) 70°C/40MIN	RESILIENCE (%) ASTM D2632
EVA 25 °	25±3	0.08±0.02	3.5 ↓	37 ↑
EVA 35 °	35±5	0.10±0.02	3.5 ↓	35 ↑
EVA 45 °	45±3	0.13±0.02	2.5 ↓	33 ↑
EVA 55 °	55±5	0.16±0.02	2.0 ↓	29 ↑
EVA 65 °	65±5	0.20±0.02	2.0 ↓	25 ↑
EVA 75 °	75±5	0.33±0.02	1.5 ↓	25 ↑
EVA 85 °	85±5	0.40±0.02	1.5 ↓	25 ↑
H2 18 °	18±3	0.03±0.01	3 ↓	38 ↑
H2 21 °	21±3	0.03±0.01	5 ↓	35 ↑
H2 25 °	25±3	0.04±0.01	5 ↓	32 ↑
H2 28 °	28±3	0.05±0.01	5 ↓	30 ↑
H5 10 °	10±3	0.04±0.01	5 ↓	50 ↑

Remarks: Please contact us for the detailed specs.



Latex foam



Ordering information

Thickness	2mm-10mm
Width	91cm-150cm
Density	D15, D16, D18, D20, D22, D25, D28,D30
Hardness	5-35 Asker C
Color	White, black, green, light green, red, blue and any other colors are available
Ingredient	Natural Latex and Synthetic Latex (SBR)
Application Scope	shoes, shoes insole, suitcase, car mat, sport equipment, gift, furniture, upholstery and so on.

Features and benefits:

Latex foam is easily formed into complex shapes in open top molds. Latex is used for upper padding but not as a midsole material. High-density latex foam sheet is often used to make die cut footbeds.