

Patented

Barefoot[®]

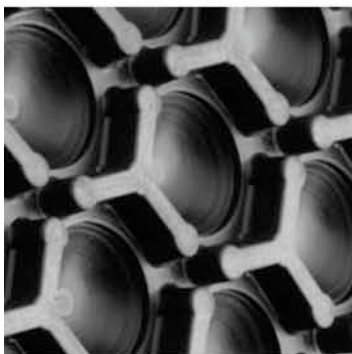
INDUSTRIAL ERGONOMIC FLOORING

Best Socks.

Best Shoes.

Best Insoles.

Find comfort resting on
the strength of Barefoot.



“GOLD STANDARD”

AAFES

“INDUSTRIAL DESIGN EXCELLENCE”

INDUSTRIAL DESIGNER SOCIETY OF AMERICA



USA Made.

The Ergonomics of Barefoot

Barefoot[®] Stands for People.

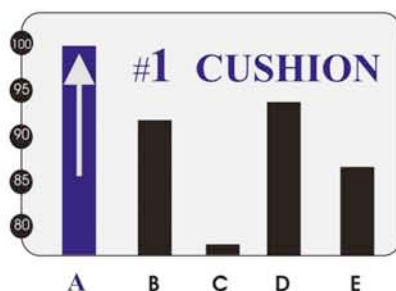
Tina and Bill stand together working. Tina weighs **108 lbs.** Bill weighs **310 lbs.** They both want a comfortable mat. They both consider Barefoot most comfortable. Here's why.



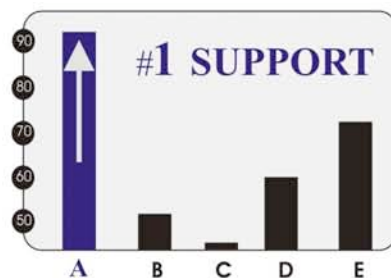
Lighter people require a high degree of compressibility, because they exert little force.

Heavier people need a high degree of support or the mat will "bottom-out."

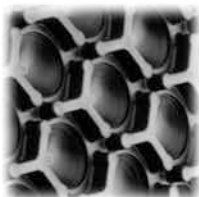
An Ergonomic Equation: An effective ergonomic mat begins with its degree of **compressibility**. The degree of compressibility must end with an equal degree of **support**.



True scientific testing at
the Graduate Aeronautical
Laboratories, Pasadena, CA



With remarkably high degrees of cushion and support, Barefoot is unmatched for its ability to provide a near-perfect balance of properties for the entire range of persons who stand at work.



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Barefoot[®]
Barefoot-Flooring.com

Mats tested

- A = **Barefoot**
- B = OrthoStand. (A Barefoot look-alike.)
- C = Generic rubber mat.
- D = Diamond-Plate.
- E = Closed-cell sponge vinyl

An Ergonomic Guide For 'Those Who Stand.

Effective ergonomic matting must effectively respond to people. The **effective response** is a *mechanical response*.

Everything mechanical has a *cycle*, whether it's in-and-out, up-and-down, left-and-right or circular.

The ends of the cycle are called *polarities*- e.g the furthest in, and the farthest out. Foreseeing effective ergonomic models requires a look at the mechanical factors in matting and their polarities. Please consider the following.

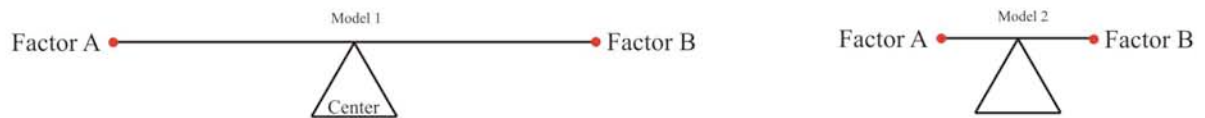


Cushion and Support

Cushion, the ability to comply under force, and **Support**, the ability to increase firmness under force, may sound mutually exclusive, but they are not. These two factors are behind the performance of many products including struts, athletic shoes, shock absorbers, mattresses, tires and anti-fatigue matting.

If cushion (**Factor A**) and support (**Factor B**) are at opposite ends of a cycle, let's point out **some obvious rules**:

Polarity



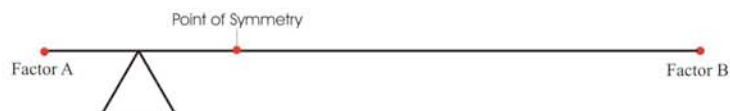
Rule 1. In general and within extent, the higher the degree of polarity (distance between ends) within an ergonomic model the more effective that model *can* be.

Symmetry



Rule 2. Effective ergonomic models depend largely on the symmetry between reciprocal ergonomic factors.

Point of Symmetry



Rule 3. The Point of Symmetry is the effective measure of mechanical performance. Beyond the point of symmetry, the factor in excess is largely ineffective. Greater imbalance between ergonomic factors becomes increasingly detrimental to the model as a whole.

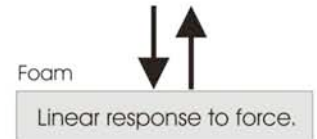
Cycle Time

Effective ergonomic models must consider the cycle time. It is pointless to have high degrees of polarity and symmetry if the mechanism fails to respond within the timing of the force - the person. Resilience is a good indicator of cycle time.

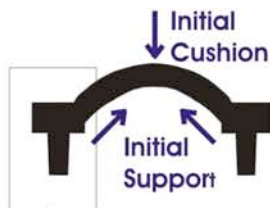
A Review of Mechanical Properties.

Shoes come in many sizes. But for *ergonomic matting* its been, “**One size fits all.**” Even today, manufacturers do not specify their products according to the size and weight of people using them. But what is more important then considering the person standing on the mat?

Barefoot performs well-beyond the simple up-and-down mechanics of most mats. Here’s why.

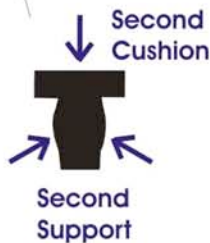


Patented Multi-level Mechanics



First level

Barefoot excels with an early degree of **cushion**. Dome compression begins at 4 lbs at center or 5 psi. Resilience pushes the domes back upward for **support**.



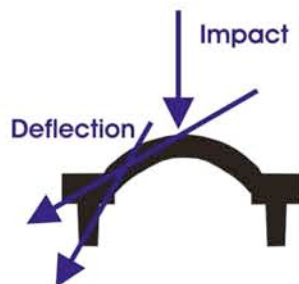
Second level

Patented independent **tri-radial supports** are key to Barefoot’s next level of mechanical properties. After initial compression of the domes, these flexible supports act as **springs** providing more cushion and greater support for those who need it.



Energy deflection upon Impact

When the foot reaches the ground, it’s called a “**direct strike.**” At that moment, 100% of a person’s weight is on one single heel. Deflecting kinetic energy is a key part in effective ergonomic matting.



Barefoot is engineered to deflect kinetic energy by channeling the energy away from the strike-point.



Comparing the Cost of Labor

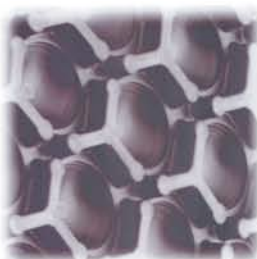
With an 8-year warranty, the value of Barefoot is revealed when comparing its cost to the cost of Labor.

Cost of Labor for eight years: 32,000 hours x \$25 (double shift). = \$800,000.00

Cost of Barefoot for that labor for eight years: 24 Sq. Ft. x \$9.00 Sq. Ft. = \$216.00



It seems rational to justify the cost of spending \$216.00 if it may effect the value of an \$800,000.00 expense.



\$0.05 per hour.

Four cents a shift.

1/4000



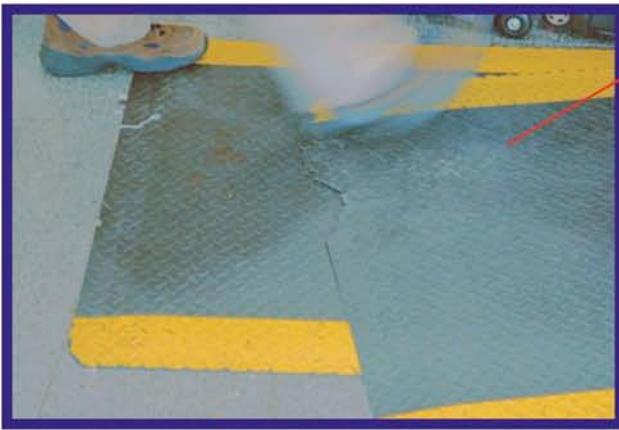
The Economics of Barefoot

Compare Barefoot to the “Best-Seller”

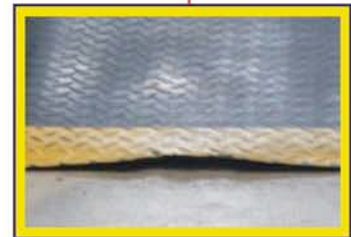
Diamond-Plate

✓ They call it the “**best-seller.**” We call it the *most replaced.*

Vinyl-top mats crack and bend. Replacing them with more has made them the “**best-sellers.**”



Yellow “Safety Borders” can’t make a dangerous mat safe. These pictures are from actual facilities



On the other hand, **Barefoot**[®] ergonomic matting uses premium quality rubber and is rarely replaced.

Unlike vinyl, Barefoot will not bend, crack or crush. Barefoot is made of quality rubber, as good as it gets, like a durable tire that can 80,000 miles. Plastic and foam simply can’t do it.

Patented

Barefoot[®]

800-860-8448 barefoot-flooring.com



USA MADE - IRREPLACEABLE

The Economics of Barefoot.

Cost-Benefit Analysis for Any Matting.

Function Decide the function: To facilitate comfort or to address slips and falls.

Performance Put a number on Performance:

- A. Promote early trial programs in sufficient size and sampling.
- B. Review the data.
 - I. Objective - Did the mat perform as expected on paper.
 - II. Subjective - Take great value in the opinion of those who use it.
- C. Scale the Performance: 1 - 10 (Very poor to very good)

A simple calculation for the comparative value of performance in matting.

Performance (1=Low 10=High) X Years (Warranty) Cost

Examples

A:
$$\frac{6 \text{ (Performance)} \times 4 \text{ (Years)}}{10 \text{ (Cost)}} = \frac{24}{10} = 2.4$$

B:
$$\frac{9 \text{ (Performance)} \times 8 \text{ (Years)}}{15 \text{ (Cost)}} = \frac{76}{15} = 5.1$$

Establish the relative cost of matting to the cost of labor.

Cost of mat Yearly cost of Labor x Years (Warranty of mat)

Barefoot Example

Cost of mat per station:

24 Sq. Ft. x \$9.00 = **\$216.00**

Cost of labor:

4,000 hours x \$25 (double shift): x 8 (Years) = **\$800,000.00**

$$= \frac{1}{4,000}$$

JUSTIFICATION

Is the cost of the mat's performance **justified** over time by its cost relative to the cost of labor over the same time?

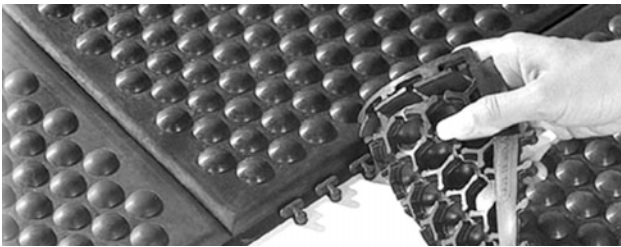
Barefoot® industrial ergonomic flooring

Material, Warranty and Specifications

Why Rubber.

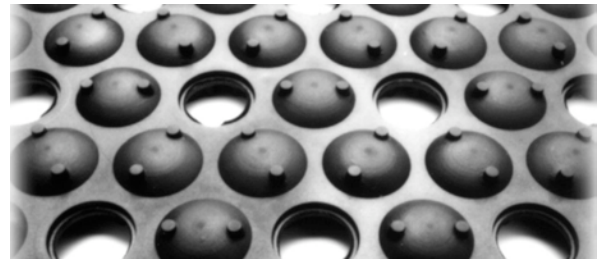
Tires are made of rubber, not plastic, for a good reason. Performance begins with the material. Rubber is resilient, elastic and durable. It is ideal for making athletic shoes, tires and floor matting. Barefoot uses highest quality rubber- free of clay or filler- that meets or exceeds Clean room Classification 1000.

TRUE: Barefoot endured 280 cycles of compression and release per minute for sixty hours. When **one million cycles** were completed the sample was sent back to the lab and was found to have lost no measurable amount of mechanical performance.



Versions:

Solid



Drain

Material Grades:

Standard: High-quality automotive grade EPDM with excellent physical properties in non-oily environments.

Nitrile: Specially formulated oil-resistant rubber.

ESD: Certified to be 1×10^4 to 1×10^6 ohms surface to ground resistance.

8-Year Warranty

Warranty: Barefoot will retain its exceptional ergonomic performance for **8 years**. Oil and Chemical Resistance / Nitrile compound: In areas that are exposed to grease and oil, use Nitrile rubber. Nitrile rubber (acrylonitrile butadiene rubber) has resistance to aliphatic and aromatic hydrocarbons, acid and alkali. Examples include motor oil, hydraulic oil and petroleum greases and paint thinner. Nitrile rubber performs poorly when exposed to oxygenated solvents and chlorinated hydrocarbons. Examples include MEK (methyl ethyl ketone) methylene chloride, xylene and bleach. Please inquire about specific applications. Mats in oily areas must be properly maintained. Warranty is pro-rated from time of purchase. Warranty assumes usage of two shifts, five days a week. Warranty does not cover misuse of product such as heavy fork-lift traffic, spiked shoes or lack of maintenance.

Specifications

Material Specifications: Specific gravity ASTM 297: 1.18. Tear resistance ASTM D-624: 150 psi, min; Tensile strength ASTM D-412: 1300 psi, min; Elongation at break ASTM D-412 500% min; Shore A hardness ASTM D-2240 45-55; Compression set ASTM D-395: 15%. Flame resistance: Exceeds FMVSS-302. Certified clean room: Class 1000. **Physical Specifications.** Weight: 1.3 lbs per square foot. Height: 15.5mm. Lengths and widths: +/- 1%. Custom cutting: specified to the inch; cut within +/- 1". Freight FOB Geneva, OH 44041.

Made in OHIO, USA

Barefoot Made by Beagle I, Inc. Phones: 213-229-0830, 800-860-8448. www.Barefoot-flooring.com

Barefoot Sizes Schedule 200 6:

Size	Sq. Ft.	Size	Sq. Ft.	Size	Sq. Ft.	Size	Sq. Ft.	Size	Sq. Ft.		
2' x 3'	6	3' x 4'	12	4' x 6'	24	6' x 4'	24	8' x 3'	24		
2' x 6'	12	3' x 6'	18	4' x 9'	36	6' x 6'	36	8' x 6'	48		
2' x 9'	18	3' x 8'	24	4' x 12'	48	6' x 8'	48	8' x 9'	72		
2' x 12'	24	3' x 10'	30	4' x 15'	60	6' x 10'	60	8' x 12'	96		
2' x 15'	30	3' x 12'	36	4' x 18'	72	6' x 12'	72	8' x 15'	120		
2' x 18'	36	3' x 14'	42	4' x 21'	84	6' x 14'	84	8' x 18'	144		
2' x 21'	42	3' x 16'	48	4' x 24'	96	6' x 16'	96	8' x 21'	168		
2' x 24'	48	3' x 18'	54	4' x 27'	108	6' x 18'	108	8' x 24'	192		
2' x 27'	54	3' x 20'	60	4' x 30'	120	6' x 20'	120	8' x 27'	216		
2' x 30'	60	3' x 22'	66	4' x 33'	132	6' x 22'	132	8' x 30'	240		
2' x 33'	66	3' x 24'	72	4' x 36'	144	6' x 24'	144	8' x 33'	264		
2' x 36'	72	3' x 26'	78	4' x 39'	156	6' x 26'	156	8' x 36'	288		
2' x 39'	78	3' x 28'	84	4' x 42'	168	6' x 28'	168	8' x 39'	312		
2' x 42'	84	3' x 30'	90	4' x 45'	180	6' x 30'	180	8' x 42'	336		
2' x 45'	90	3' x 32'	96	4' x 48'	192	6' x 32'	192	8' x 45'	360		
2' x 48'	96	3' x 34'	102	4' x 51'	204	6' x 34'	204	8' x 48'	384		
2' x 51'	102	3' x 36'	108	4' x 54'	216	6' x 36'	216	8' x 51'	408		
2' x 54'	108	3' x 38'	114	4' x 57'	228	6' x 38'	228	8' x 54'	432		
2' x 57'	114	3' x 40'	120	4' x 60'	240	6' x 40'	240	8' x 57'	456		
2' x 60'	120	3' x 42'	126	4' x 63'	252	6' x 42'	252	8' x 60'	480		
2' x 63'	126	3' x 44'	132	4' x 66'	264	6' x 44'	264	and so on....			
2' x 66'	132	3' x 46'	138	4' x 69'	276	6' x 46'	276				
2' x 69'	138	3' x 48'	144	4' x 72'	288	6' x 48'	288				
2' x 72'	144	3' x 50'	150	4' x 75'	300	6' x 50'	300				
2' x 75'	150	3' x 52'	156	4' x 78'	312	6' x 52'	312				
2' x 78'	156	3' x 54'	162	4' x 81'	324	6' x 54'	324				
2' x 81'	162	3' x 56'	168	4' x 84'	336	6' x 56'	336				
2' x 84'	168	3' x 58'	174	4' x 87'	348	6' x 58'	348				
2' x 87'	174	3' x 60'	180	4' x 90'	360	6' x 60'	360				
2' x 90'	180	3' x 62'	186	4' x 93'	372	and so on....					
2' x 93'	186	3' x 64'	192	4' x 96'	384						
2' x 96'	192	3' x 66'	198	4' x 99'	396						
2' x 99'	198	3' x 68'	204	4' x 102'	408			9', 10' and 12' widths are available at special pricing.			
2' x 102'	204	3' x 70'	210	4' x 105'	420						
2' x 105'	210	3' x 72'	216	4' x 108'	432						
2' x 108'	216	3' x 74'	222	4' x 111'	444						
2' x 111'	222	3' x 76'	228	4' x 114'	456					Custom work is available.	
2' x 114'	228	3' x 78'	234	4' x 117'	468						
2' x 117'	234	3' x 80'	240	4' x 120'	480						
2' x 120'	240	3' x 82'	246								
		3' x 84'	252								
		3' x 86'	258								
		3' x 88'	264								
		3' x 90'	270								
		3' x 92'	276								
		3' x 94'	282								
		3' x 96'	288								
		3' x 98'	294								
		3' x 100'	300								
		3' x 102'	306								
		3' x 104'	312								
		3' x 106'	318								
		3' x 108'	324								
		3' x 110'	330								
		3' x 112'	336								
		3' x 114'	342								
		3' x 116'	348								
				Part Numbering							
				1. Select type of material: Standard, Nitrile or ESD (S, N or E)							
				2. Select Surface – Solid or Drain. (S or D)							
				3. Indicate size							
				4. Part Number		Type-Surface -Size	Examples:				
				SBFD23		Standard (Barefoot)	Drain	2' x 3'			
				NBFD412		Nitrile (BF)	Drain	4' x 12'			
				SBFS23		Standard BF	Solid	2 x 3			
				NBFD860		Nitrile BF	Drain	8 x 60			
				EBFS6100		ESD BF Solid	6 x 100				
				Footnotes:							
				1. 2' x 3' and 3' x 4' are sin g le modules that do not need bonding.							
				2. 2' x 3' and 3' x 4' modules interlock to make runners and blocks.							
				3. For long runners and large blocks, we recommend bonding.							
				4. Bonding is done by taking a separate s trip of rubber and							

9', 10' and 12' widths are available at special pricing.

Custom work is available.

Part Numbering

1. Select type of material: Standard, Nitrile or ESD (S, N or E)
2. Select Surface – Solid or Drain. (S or D)
3. Indicate size
4. Part Number Type-Surface -Size *Examples:*
SBFD23 Standard (Barefoot) Drain 2' x 3'
NBFD412 Nitrile (BF) Drain 4' x 12'
SBFS23 Standard BF Solid 2 x 3
NBFD860 Nitrile BF Drain 8 x 60
EBFS6100 ESD BF Solid 6 x 100

Footnotes:

1. 2' x 3' and 3' x 4' are single modules that do not need bonding.
2. 2' x 3' and 3' x 4' modules interlock to make runners and blocks.
3. For long runners and large blocks, we recommend bonding.
4. Bonding is done by taking a separate strip of rubber and permanently sealing the modules from both the top and the bottom.

Who buys Barefoot®

Government: Barefoot has been deemed **The Gold Standard** for the AAFES (Army/Air Force Exchange Service).

Private sector: the companies below have bought Barefoot within the last two years. Notice that most share one common element: they have **a trained and skilled work force**, whose productivity and well-being of employees are very important to management.

Company

Alcoa
Amazon.com
BMW
Boeing
Delphi
Disney World
DuPont
Eli-Lilly
GE Engines
GE Transportation
General Dynamics
General Motors
Goodyear
Google
Harley-Davidson
H J Heinz
H-P
IBM
J C Penney
Lear
Levolor
L. L. Bean
Los Angeles Times
Maytag
Mayo Clinic
Michelin
Monsanto
New York Transit Authority
Nissan
Pepperidge Farms
RR Donnelly
SC Johnson
Sony Electronics
Stanley Tool
Steelcase
Toyota Motor Sales
Tree Top
Visteon
Xerox

Industry

Metals
On-line retailing
Automotive assembly
Aerospace
Automotive components
Theme parks
Chemicals
Pharmaceuticals
Aerospace
Locomotives
Defense builder
Transportation
Rubber and tires
IT
Motorcycle manufacturing
Food processing
Electronics
Electronics
Catalogue order fulfillment
Aircraft
Home furnishing
Sporting goods / Apparel
Newspaper publishing
Appliances
Medical facilities
Tires
Agricultural chemicals
Toll booths
Auto manufacturing
Specialty foods
Publishing
Consumer personal products
Consumer electronics
Hand tools
Office equipment
Distribution centers
Specialty foods
Automotive parts
Office equipment

Beneath Barefoot® is a breath of fresh air.

Sanitation is no
accident – look
underneath
your mat...



Look underneath a floor mat in many regions of the country and your are likely to find wetness or moisture, microbial growth and musty smells. When moisture is trapped underneath a mat it creates a problem.

In fact, lack of sanitation is the third most frequent complaint about matting.

That is why Barefoot was designed to mechanically remove unwanted moisture. This patented system is simple, very effective and exclusively "Barefoot." This is how it works: first, flexing domes actively displace air underneath the mat. Second, the tri-radial supports allow that air to flow without impediment. Third, the raised sides of Barefoot promote fresh air intake.

In other words, every time you step on Barefoot, fresh air is breathed in and moisture is carried away. Barefoot = SANITATION because microbial growth, musty smells and floor stains are greatly reduced if not eliminated.

Breathe easier. Go Barefoot®



Barefoot and the Competition

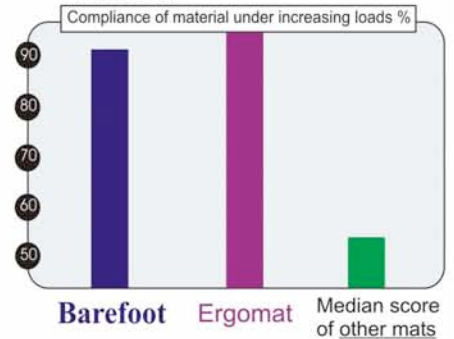
Barefoot[®] vs. ERGOMAT[®] (polyurethane)

ERGOMAT was used as the standard and benchmark for testing at Caltech. Six mats were tested. Only **Barefoot** matched the performance of its noble rival. See the report at www.barefoot-flooring.com.

Other mats tested:

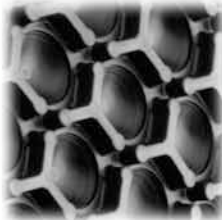
- A. Bubble mat look-alike
- B. Common rubber mat
- C. Diamond plate sponge
- D. Sponge vinyl

Cushion

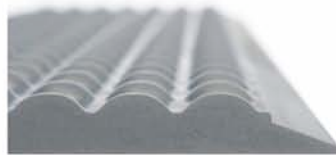


Beyond their similar performance, there are a few differences between the two.

A COMPARISON

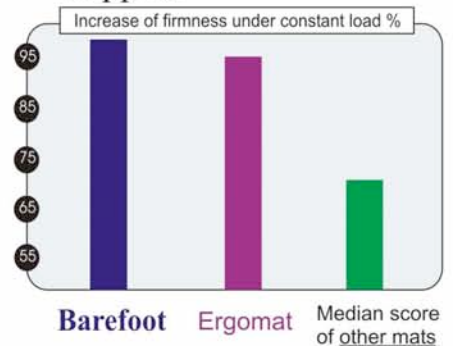


Barefoot[®]



ERGOMAT[®]

Support



Cost per square foot*:

\$8.00

\$20.50

Composition:

Rubber

Polyurethane

Warranty:

8-Years

8-Years**

Recyclable:

Yes

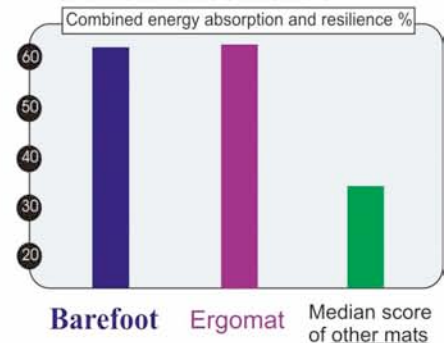
No

Tear Resistance:

150 psi

0.9 psi

Material resilience



* Based on a standard 3' x 4'

** Ergomat will crumble if exposed to water or abrasion beyond normal foot traffic, voiding the warranty.

Barefoot and the Competition

Barefoot[®] Vs. Diamond-Plate[®] SpongeCote

Wearwell has 93 different kinds of mats and one “Best Seller.” According to Wearwell, Diamond-Plate SpongeCote sets the “standard” in matting. We took Wearwell’s standard-setting mat to Caltech and had it measured against **Barefoot**. A description is found below.

The products

Barefoot

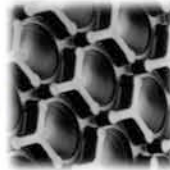


Diamond-Plate



Construction

Patented matrix of independent tri-radial supports.



Vinyl on foam rubber

Cost:

\$8.50 / Sq ft.

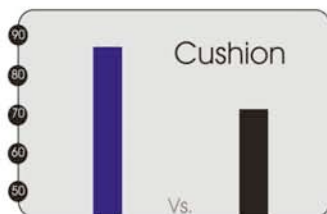
\$7.00 / Sq ft.

Warranty:

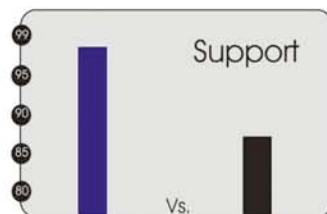
Eight years

Three years

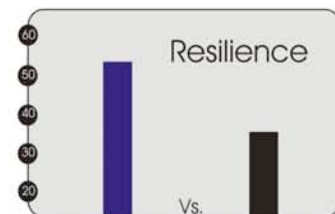
Performance: **Barefoot** surpasses **Diamond-Plate** in all categories.*



Barefoot **Diamond-Plate**



Barefoot **Diamond-Plate**



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* The full report is at www.barefoot-flooring.com
Wearwell and SpongeCote are registered trademarks of the Tennessee Mat Co.

Barefoot and the Competition

The Making of **”SmartCells”** by



A Brief History

Back in 1987 SATECH introduced a surface for fall protection in **playgrounds**. The matting, however, could not pass the Consumer Product Safety Council standards for falls over eighteen inches. Then in 1990, SATECH claimed their mat was for landing **helicopters**. That did not exactly work for the industry. And now, in 2007, the *same mat* is claimed to be for **people** who stand.

Playgrounds, helicopters or people?

The Patents:

SmartCells has five U.S. patent numbers boldly embossed on its surface. A patent search revealed that **none** of the patents are related to people standing. All of the patents are related to **playgrounds and helicopters**. See patents 5,013,029, 4,998,717, 4,846,457, 4,948,116 and 4,727,697.

No claims related to people standing.

Optimum Compressibility:

SmartCells claims it has “optimum compressibility.” That number is said to be between “0.6 and 0.9 Megapascals.” (www.satechinc.com/the_satech_story).

Claims of perfection should draw attention. Doing the homework, we discovered that a “megapascal” can be converted into something we all understand: Pounds per square inch.

The conversion is simple: From: Megapascals (MPa). To: Pounds per Square Inch. Multiply by: 145.05. The calculation equals **87 to 130** pounds per square inch.

Who can exert 100 lbs per square inch?

Barefoot[®]

Industrial ergonomic flooring. 800-860-8448

Our Patents are related to people. Our science was done at Caltech.