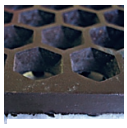
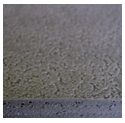
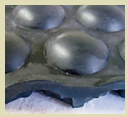
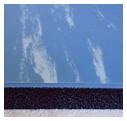
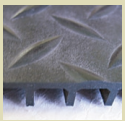
Anti-fatigue Mat Product Comparison

✔ most effective ✓ somewhat effective	SmartCells	Hexagonal Drain-Thru	Domed Foam	Flat Foam	Domed Rubber	Top Sheet Foam Back	Rectangular Rubber
							
1. Softness / Hardness	✔				✓		
2. Stability / Instability	✔		✔		✔		
3. Resists Bottoming-Out	✔	✔	✓		✓		✓
4. Responsivness	✔				✓		
5. Absorb / Return Energy	✔						
6. Softer as Compressed	✔						
7. Resists Movement	✔	✓			✓		✓
8. Easy to Clean	✔			✓		✔	✔
9. Durability	✔	✔			✓		✔

product performance based on biomechanics testing of 19 different anti-fatigue mats

Essential Questions to ask about Anti-fatigue Mat Performance

1. Has the mat been optimized for Softness/Hardness (Elastic modulus 0.6 - 0.9 Mpa)? The elastic modulus of a material is a global measure of mat hardness or firmness (Mpa is a measure of resistance to pressure), and is one of the most important test results in evaluating product performance. SmartCells mats have been optimized for the most effective amount of firmness for standing / walking workers.

2. Does the mat provide an adequate balance between stability and instability? There needs to be enough instability to encourage small postural changes that facilitate increased blood flow to and from working muscles, but not so much that it requires excessive muscular activity that might accelerate fatigue. SmartCells mats provide a stable surface supported by unstable cells that 'soften' as needed in response to surface activity.

3. Does the mat resist bottoming out without being too soft? A mat that is too soft and easily bottoms out begins to act like a mat that is too hard because the cushioning material becomes fully compressed. SmartCells mats have been optimized to resist bottoming out without being too soft.

4. Does the mat adequately respond to worker movements? When a mat rapidly returns to its original shape as weight is shifted, less energy is used as the mat "helps" with movement. Less energy = less fatigue. The SmartCells technology has been designed to be "in-phase" with the movements of the body, providing a remarkable anti-fatigue characteristic that actually "helps" every subtle and overt movement involved in standing and walking. Therefore, SmartCells mats can literally reduce the energy required to perform quiet standing or walking work compared to other surfaces. This is true anti-fatigue technology.

5. Does the mat balance shock attenuation (absorb energy) and resilience (return energy)? The ability to attenuate or absorb shock without bottoming out ensures the impact of falls and sudden movements on the mat are cushioned adequately without causing injury. A resilient mat will help avoid the tiring feeling of working or walking in sand, which can accompany mats that are too soft or "cushy". SmartCells mats have been optimized for shock attenuation and resilience.

6. Does the mat get softer as it is compressed? Foam gets harder as it is compressed. For standing workers, SmartCells get softer as they are compressed, without bottoming out.

7. Does the mat resist movement under use? Many mats are so light-weight that they shift easily and become a trip hazard. SmartCells mats are significantly sturdier than light-weight mats, and resist movement, yet are easily removed for cleaning.

8. Is the mat easy to clean? Foam based mats, mats with rough surfaces, or mats with through-holes are difficult to clean, absorb moisture or trap foreign matter, which leads to unsanitary and unsightly conditions. The SmartCells mat surface can easily be swept or vacuumed. Pressure washing with soap and water is also easy and does not damage the mat.

9. Is the mat durable? The real value of an anti-fatigue solution may be more apparent when analyzing the number of replacement cycles that result over a specified time period. Many mats are replaced after only a few months or a few years due to damage. Although it may not be visible to the naked eye, the thin cell walls of foam mats can rupture and lose their elasticity with use, leading to an overly soft condition and a mat that easily bottoms out. Foam can break down, become raged and generate particulates over time.

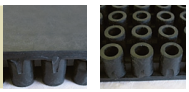
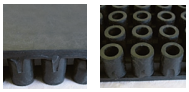
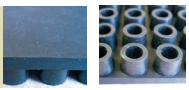
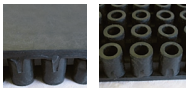
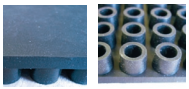
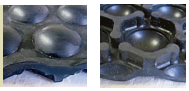
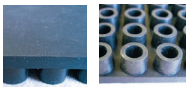
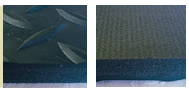
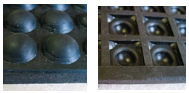
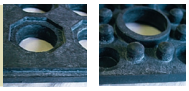
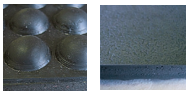
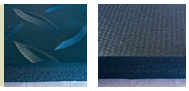
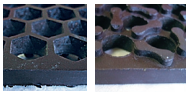
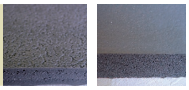
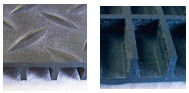
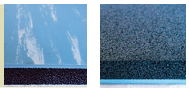
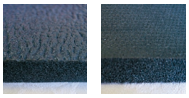
Also, many mats today are prone to edge damage because of thin edges or the softness of their material. Draped top-covers can curl and tear as they become brittle. Mats with damaged edges create a trip hazard and should be replaced. The edge system of a mat should be designed to be durable so it is not easily damaged.

The SmartCells anti-fatigue mat has been designed to last for many years; to resist edge damage, tearing and pre-mature failure of its elastic properties. SmartCells mats come with an 8-year limited warranty.

SATECH Inc. • 360-748-8711 • P.O. Box 1264 Chehalis, WA 98532 E-mail: info@SatechInc.com • www.SmartCellsMat.com

Over-all Product Ranking

Product rankings are based on independent biomechanical testing and evaluation of 19 anti-fatigue mat samples. Samples were tested for hardness, resistance to bottoming-out, responsiveness, resilience and shock absorption. Multiple SmartCell samples were submitted to determine the optimal rubber formulation. *To find out more about SmartCells contact SATECH* 888-SATECH1 (888-728-3241) *or visit* www.SatechInc.com.

1	SmartCells platform (rubber formulation #1)	
2	SmartCells platform (rubber formulation #2)	
3	SmartCells mat/runner (rubber formulation #1)	
4	SmartCells platform (rubber formulation #3)	
5	SmartCells mat/runner (rubber formulation #2)	
6	SmartCells mat/runner (rubber formulation #3)	
7	Domed Rubber (manufacturer A)	
8	SmartCells mat/runner (rubber formulation #4)	
9	Top Sheet Foam 1 (diamond plate sheet, foam back)	
10	Domed Rubber (manufacturer B)	
11	Rubber drain-through	
12	Domed Foam	
13	Top Sheet Foam 2 (diamond plate sheet, foam back)	
14	Hexagonal drain-through	
15	Flat Foam (manufacturer C)	
16	Rectangular Rubber	
17	Top Sheet Foam 2 (smooth sheet, foam back)	
18	Flat Foam (manufacturer D)	
19	Domed Rubber (manufacturer E)