

Comparable Cornell Test



	Greatmats Elite Striking Arts Pro Mat Tatami	Dollamur Roll Out Mat
Weight	13 - 15 lbs per cubic foot	2 lbs per cubic foot
Structure	Open cell	Closed cell
Air	Air flow	Air trapped
Air versus Foam	<p>Object falls on Agglorex mat Independently the force used => air rushes out => foam absorbs shock</p> <p>Object leaves the Greatmats Judo mat => Air rushes back in => Safer independently the force used => More shock absorbent</p>	<p>Object fall on Dollamur Roll Out mat 1/ Force is BIGGER than mat can handle => Air bubbles burst => Foam breaks down => Creation of soft spot => No 100% recovery</p> <p>2/ Force is WEAK and mat kicks back => object takes shock of the fall</p>
Dimensions	Stable dimensions Regardless temperature changes	Variable dimensions If temperature changes : Mat will expand or contract HOT air => mat gets bigger COLD air => mat will shrink
Finishing	Thermally sealed on all surfaces to resist moisture absorption and to prevent elements getting into the foam	The roll-out mat has three sides of fully exposed foam.
Surface	smooth but not slippery	slippery when wet
Replacement	only the need of 1 mat (78' x 39')	immediately 1 ROLL (40ft)
Tape	Not required	Claimed to be seamless but needs tape => expensive => every 6 feet => traps dirt and hair => regular replacement => too tight, too loose
Design	Mats were designed specifically for use in commercial grade, professional martial facilities	Roll-out mats were designed specifically for use in temporary wrestling facilities where mats need to be moved daily
Product life expectations	+/- 15 years	3 - 4 years
Practice	30 years mats older than 25 years still in use independently from its frequency of use	5 years in use replacement required 2 - 3 times before replacing Greatmats Judo Mat dependently from frequency of use while shock absorption worsens lower investement now => higher cost per year / life time
Benefits	Performance, Safety, Durability	Portability
Environment	Foam core = 100% recycled material	

CORNELL MATTRESS TEST

Use of a ram head adjusted to replicate a 200 lbs load

	CYCLES	0	1000	2000	3000	4000	5000
Support Firmness in pounds	Roll Out	86	79	76	75	67	67
	Puzzle	64	74	78	62	64	54
	Elite Striking Arts Mat	85	87	86	84	85	88
Firmness Change in %	Roll Out		8.14%	11.63%	12.79%	22.09%	22.09%
	Puzzle		-15.63%	-21.88%	3.13%	0.00%	15.63%
	Elite Striking Arts Mat		-2.35%	-1.18%	1.18%	0.00%	-3.53%
Cumulated Dimple per 1/16 inch	Roll Out		2	2	2	3	3
	Puzzle		0	0	1	2	3
	Elite Striking Arts Mat		1	1	1	1	1

Support Firmness The ability to resist indentation when weight is applied

The LARGER the value => The FIRMER the mat

Firmness Change The indicator of change in support firmness

- => mattress became softer

+ => mattress became firmer

close to 0% => ideal => no change

Cumulated Dimple The result of the applied force to the surface of the mat = permanent deformation of the surface

Measured by the depth of compaction = dimpling

Measured per 1/16 inch

The Elite Striking Arts Pro Mat Tatami maintained its firmness/integrity 5 times longer than Roll Out mat

DECELARATION COMPARISON TEST

Use of a **headform** simulating the size and **weight of a competitor's head**

		3 Feet Drop Height			6 Feet Drop Height		
		Dron 1	Dron 2	Average	Dron 1	Dron 2	Average
Peak G	Roll Out 1	110	110		543	598	
	Roll Out 2	102	107		383	517	
	Roll Out 3	109	112		108.3	421	
	Elite Striking Arts Pro1	109	112	110.2	215	228	
	Elite Striking Arts Pro2	109	112		206	223	
	Elite Striking Arts Pro3	107	112		208	226	
			Dron 1	Dron 2	Average	Dron 1	Dron 2
Velocity Change	Roll Out 1	294	288	285.5	400	412	407.2
	Roll Out 2	282	285		412	408	
	Roll Out 3	276	288		403	408	
	Elite Striking Arts Pro1	261	262	262.0	368	373	365.8
	Elite Striking Arts Pro2	265	264		353	371	
	Elite Striking Arts Pro3	258	262		361	369	

Peak G The LOWER the G force :

=> The more energy the mat absorbs

=> The less the head bounces

At 6' height : The Elite Striking Arts Pro absorbs twice as much shock as the Roll Out mat

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