

**Judo Mats Tatami
Comparable Cornell Test**

	Greatmats Judo Mats Tatami 1x2 Meter	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	<p>Stable dimensions Regardless temperature changes</p>	<p>Variable dimensions If temperature changes : Mat will expand or contract HOT air => mat gets bigger COLD air => mat will shrink</p>
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	<p>Claimed to be seamless but needs tape => expensive => every 6 feet => traps dirt and hair => regular replacement => too tight, too loose</p>
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	<p>30 years mats older than 25 years still in use independently from its frequency of use</p>	<p>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</p>
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
	Judo Mat Tatami	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%
	Judo Mat Tatami		-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
	Judo Mat Tatami		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 Judo Mat Tatami maintained its firmness/integrity 5 times longer than Roll Out mat

DECLARATION COMPARISON TEST

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

		3 Feet Drop Height			6 Feet Drop Height		
		Drop 1	Drop 2	Average	Drop 1	Drop 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	625	514.5
	Judo Mat Tatami 1	109	112		215	228	
	Judo Mat Tatami 2	109	112		206	223	
	Judo Mat Tatami 3	107	112		110.2	208	

		Drop 1	Drop 2	Average	Drop 1	Drop 2	Average
Velocity Change	Roll Out 1	294	288		400	412	
	Roll Out 2	282	285		412	408	
	Roll Out 3	276	288	285.5	403	408	407.2
	Judo Mat Tatami 1	261	262		368	373	
	Judo Mat Tatami 2	265	264		353	371	
	Judo Mat Tatami 3	258	262		262.0	361	

Peak G The LOWER the G force :
=> The more energy the mat absorbs
=> The less the head bounces

At 6' height : The Judo Mat Tatami absorbs twice as much shock as the Roll Out mat

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