

# Unity™ Surfacing

A Unity Creations Co. Manufacturing Rubberized Safety Surfacing, Flooring and Paver Products

## TURF-TOP TILE MAT BLOCK PAVER SYSTEM

**Seeing is believing** as our unique manufacturing process chemically binds our turf material into a homogeneous unit, delivering the most durable, strongest manufactured product on the market today.

**Choosing our turf-top products** is the foundation for a smart, long-term investment in durability and beauty. As the industry leader, the superior turf material that we offer, couple with our recycled rubber, gives you the highest quality, environmentally friendly system above all others. It is designed to meet or exceed all of your project needs for use on playgrounds, rooftops, recreational areas, fitness facilities and more.

**All of our products** are independently laboratory tested with respect to ASTM, CPSC, ADA, FM safety standards and guidelines to be installed over new and existing sub-surfaces (both indoors and outdoors) and/or rooftops.

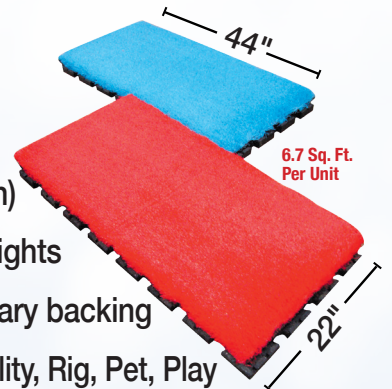
**Architects, engineers, designers, owners** and property managers can plan for future projects using our turf-top tiles as the newest alternative to safety surfacing, flooring and paver applications for use indoors and outdoors.



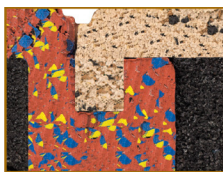
Rooftop using "Natural-54"



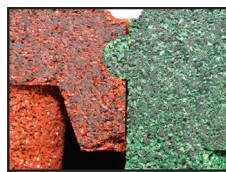
- Antistatic Yarns
  - Heat Resistant Technology
  - Pile Heights from: 1" to 1.4" (in)
  - Dense, 54-80 Ounce Face Weights
  - 20-24oz Antimicrobial secondary backing
  - Five Types of Tops: Natural, Agility, Rig, Pet, Play
  - Available Thickness: 2.0", 2.5", 3.0", 3.5" and 4"
  - Ideal for Playgrounds, Rooftops, Pet Areas, Fitness, Etc.
- \* "Playground" Turf also available in: Blue, White, Red, Yellow



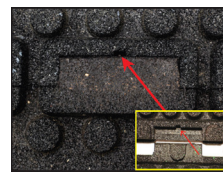
### Self Interlocking Design



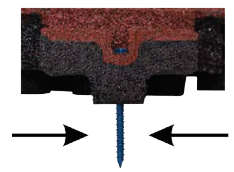
### New Bottom-Lock™ Technology



### Glue Reservoir



### Bolt-Down



\*The Bolt-Down method of installation should only be used on solid ground level installations and not rooftops what-so-ever.



# Technical Information



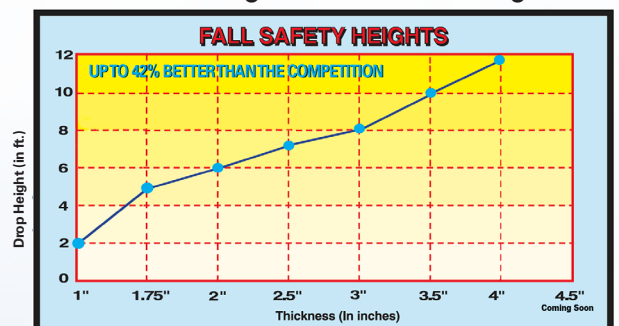
## Bottom Portion of Product:

Testing Criteria:	Ref./ Guide:	End Result:	Testing Lab:
Impact Attenuation	ASTM F1292-04	See Chart Below	DTL/Element
Weathering/Aging	ASTMC67, D573	No Deterioration	TUV
Flamability	ASTM E108	Class A	V-Tec
Flamability	ASTM E108 for Roof Coverings	Class A (Burn Stop @ 38 sec.)	V-Tec
Flamability	ASTM E648	Class 1 (0.45 watts/cm2)	Govmark
Burn Pill	ASTM 2859	3.7"	Govmark
Skid Resistance	ASTM 303-93 (2013)	67 Wet / 80.25 Dry	V-Tec
ADA Accessibility	ASTM 1951-99	0.26 Firm / 0.28 Stability	Beneficial Designs
R-Value (Thermal Con)	ASTM C518-98	0.939 Con./2.4 Res. and <	SGS
Reflectance/SRI/Emittance	ASTM E903, E891 and E1980	5.1-68.6 %Solar Ref./3-86 SRI	Atlas
Lead in Materials/Children's Products	CPSC-CH-E1002-08	2 ppm/ MDL	SGS
Water Penetration	Sustainable Storm Water Mgt./Run-off	0.13 gal. Body/0.21 gal. Seam	SGS
Pull Force	ANSI/FM 4474 Approval, Appendix B	132 lbf Vertical / 39.7 lbf Horizontal	SGS
Wind Resistance	ASTM D3161-09	150 mph for 2 hours	PRI
Class 4 Impact Resistance	UL 2218, 2010	No damage, tearing, fracturing, cracking, splitting, rupture, crazing, etc.	PRI
Tensile Strength, Elongation & Modulus	ASTM D412	0.87 Tensile, 0.76 @ Break/71.5% Elongation, 92.4% @ Break/3.49 Modulus	Element
Tear Resistance	ASTM 624	156 Peak Tearing Load / 11.3 Peak Tearing Strength	Element
Taber Abrasion Index	ASTM D3389	0.719	SGS
Durometer of Hardness	ASTM D2240	54 Points Shore A	Element
Compression Deflection	ASTM D1667	577 kPa @ 25% / 25.227 mm	Element
Coefficient of Thermal Expansion	ASTM E831	.0013 in/Ft Per Degree	Element
Mass Per Area/Thickness/Density/Force	ASTM D3676	14.28 kg/m2 / 74pcf / 1262 kg/m2 / 1460 kPa	Element
Compression Resistance	ASTM D3574	2.78 kN Load to Preset / 1030 kPa Compression Resistance	Element
Constant Deflection Compression Set	ASTM D3676 (13) D395	99.9% Recovery	Element

## Top (Turf) Portion of Product:

Testing Criteria:	Ref./ Guide:	End Result:
Fiber ID; Melt Point	ASTM D7138	118-122 Degrees C.
Yarn Denier	ASTM D1577-07	10,755 - 12,594 Monofilament
Average Yarn Filament Width	ASTM D3218-07	Mono = 1,248 microns/Thatch = 715 microns
Average Yarn Filament Thickness	ASTM D3218-07	Mono = 270 microns/Thatch = 126 microns
Total Lead Content digested by 3052	ASTM F2765/EPA 3052, 6010	< 0.5mg/KG
Av. Weight: Total, Pile Yarn, Prim, & 2nd Backing	ASTM D5048-10e1	101.72/71.94/8.30/21.47 oz/yd2
Pile Heights: Agility, Multi, Pet, Play	ASTM D5823-19	1.0", 1.0", 1.25" and 1.4" (inches)
Average Stitch Count and Gauge	ASTM D5793-18	5.17 Stitches per inch / 3/8" Gauge
Average Tuft Bind Strength	ASTM D1335-17e1	11.6 lbs. force
Average Grab Tear-Length, MD & Width, CMD	ASTM D5034-09 (2017)	203 lbs force/225 lbs force/58lbs force @ 5%
Average Pill Flammability	ASTM D2859-16	8 out of 8 Pass / Meet 16CFR 1630 (FF1-70)
Average Abrasive Index	ASTM F1015-04 (2017)	27
Average Drainage Capacity	ASTM F1551, DIN 18-035	631 inches/hr
Average ADA Wheelchair Accessibility	ASTM F1951-14	Passes/Base = 14.81-10.68/Client: 6.85-6.29

## Critical Fall Height Protection Rating Chart



\*The melt point and total lead testing were not tested for individual values for mono and thatch. Both mono and thatch fibers were chopped and blended together to provide an overall result. We undertake all assignments for our clients on a best efforts basis. Our findings and judgements are based on the information given to us using the latest test methods available. We can only ensure the test results for the specific items tested. Unless otherwise noted in the deviations section of this report, all tests are performed in compliance with stated test method.

Local Dealer's (Rep's) Business Card Here



Unity Creations, Ltd.  
Unity Surfacing Systems  
3997 Rt. 9W (P.O. Box 9)  
Saugerties, NY 12477

T: (1-877) 41-Unity F: (845) 246-1700  
E-mail: productinfo@surfacingssystems.com  
Internet: www.surfacingssystems.com

Unity believes that our products size, weight, durability, longevity, fall protection ratings (the highest in the industry), and ability to have an integrated self-interlocking feature (for rooftop applications), with bolt-down capabilities (for playground use), can be effectively and easily secured on site to eliminate the potential for wind-up-lift, vandalism and maintenance issues. Everyone at Unity Creations, Ltd. / Unity Surfacing Systems would like to thank you for your interest in our products and services.

[www.surfacingssystems.com](http://www.surfacingssystems.com)