

A division of Unity Rubber Products, LLC.

# "Unity" Surfacing Systems™

Presents



## SOFT-LAND

TILES  
MATS  
BLOCKS

**Soft-Land** is Unity's 3", 3 1/2" and 4" (custom) thick rubberized safety surfacing, flooring and paver products that are made from 100% recycled (waste) tires and rubber. These double mats-tiles-blocks have a unique double interlocking system with bolt-down capabilities. The large coned bottom (feet and/or legs) allows for free flow drainage to a drainage outlet while at the same time providing cushion from falls onto the surfacing below. They are used to sit, walk, play or travel on. This series passes an eight (8'); ten (10') and soon a twelve (12') foot drop height rating. Our products are found mostly on rooftops (as ballast), large playground areas, daycare centers, recreational areas, pools & patios, climbing walls and in water & amusement parks where fall safety heights are an issue. They are also used in many other applications that are found indoors and outdoors, and even acoustical areas for noise reduction. **SIZE, WEIGHT, LONGIVITY, SAFETY, QUALITY & DURABILITY** is standard to all of our products and services. Our Soft-Land series is easy to clean and allow for low maintenance costs. They do not displace during usage and create consistent shock absorbcency year round. The low life cycle makes for very good footing thus preventing leg fatigue. Unlike loose filled materials, **Soft-Land** does not harbor foreign objects such as glass. All of Unity's rubberized safety surfacing, flooring and paver products are accessible to the handicapped. They are water permeable, easy to install and fully warranted which creates a superior product that no one can match.

Not only are they resilient and can be installed over new and existing surfaces and roofs, but they are also *independently laboratory tested* exceeding **ADA** (Americans with Disabilities Act), **ASTM** (American Standard for Testing Materials) and **CPSC** (Consumer Product Safety Commission) guidelines for: FALL SAFETY HEIGHTS, SKID RESISTANCE, FIRE RETARDANT, WEATHER (AGING), ACCESSIBILITY, THERMAL CONDUCTIVITY, REFLECTANT/SRI and LEAD TESTED.

**Unity has created** an impressive way to turn unwanted rooftops into usable spaces, while at the same time providing thermal and mechanical protection. The performance, long term value, color diversity and safety of our products has satisfied architects, engineers, designers, building owners and managers economical needs of renovation and/or retrofit projects. As a member of the "United States Green Building Council" you may be eligible to receive "LEED" points and/or credits when using our recycled products.

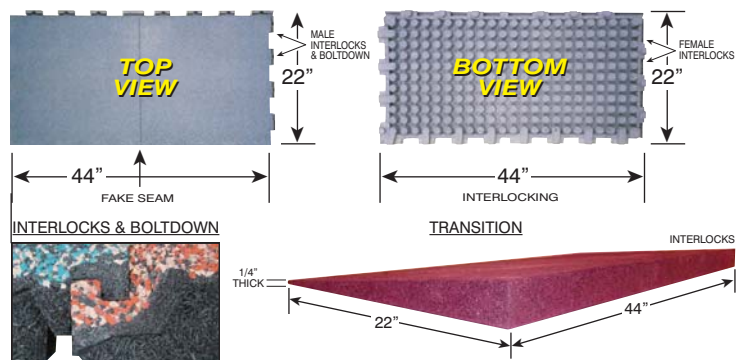
**The sheer size**, weight, durability, interlocking design, built-in pedestal system, coupled with our specially formulated one-part adhesives, provide resistance to premature wear-and-tear, wind-up lift, and leg fatigue. Unity's resilient tile/mat/block/paver system will conform to almost any sloped waterproofing membrane system, old or new, while at the same time providing noise reduction.

**Its unique** bottom (feet or legs) design, high density and quality of raw materials used, allow for heavy use, and provide comfort at the same time. The attractive look of the product stems from the wide variety of colors and thicknesses that are available. These traits allow for much less heat build up which commonly occurs on other surfaces. Architects and engineers can plan for future projects using our rubberized safety surfacing, flooring and paver products as the newest alternative to surfacing and flooring.

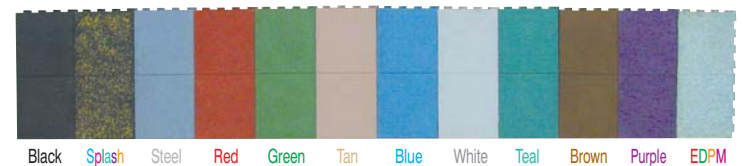
**Installation of this product** is placed in the intermediate category. Adhesive may be applied to the base and/or interlocks. Bolt down capabilities (for ground level installations only) are available for extra strength and security. A utility knife or jigsaw can be used for cutting. A straight line and tape measure may also be needed. A trowel and/or caulking gun is required for gluing purposes.



### TECHNICAL DATA



### COLORS



THICKNESS	WEIGHT PER UNIT
3" (inches)	43.68 lbs.
3 1/2" (inches)	47.04 lbs.
4" (inches)	50.04 lbs.

WEIGHT PER FOOT	FALL HEIGHTS
6.5 lbs.	8' (foot) drop
7 lbs.	10' (foot) drop
7.5 lbs.	12' (foot) drop



ADA



### **General Description**

All necessary material components and application information required to install the molded three (3"), three and a half (3.5") and four (4") inch thick "Soft-Land" series, composed of clean rubber granules, using the "step-&-repeat" system, gluing the interlocks, shall be by Unity Creations Ltd. / Unity Surfacing Systems or approved equal, either of which has been manufactured in the United States of America for a period of ten (10) or more years.

### **General Quality Assurance**

**Qualifications:** Manufacturer shall have manufactured and marketed this system in the United States of America for a period of ten (10) years, using clean rubber granules, that has been recycled here in the United States of America from tires and rubber derived from the same. **Installation:** Labor shall be completed by "certified" installers with five (5) years experience installing safety surfacing, flooring and paver products. Installation instructions shall be provided by Unity Creations, Ltd. / Unity Surfacing Systems. Glue shall be applied to the interlocks (both in the joint and on top of the joint) as well as to the base (underside) for product-to-sub base adhesion; Screw-bolts shall be applied through the interlocks, and countersunk. **Base gluing (glue-down) and screw-bolts do not apply to rooftop installations. Glue being applied to the interlocks, both in the joint and on top of the joint, shall be maintained.** **Design & Detailing:** The "Soft-Land" series is three (3"), three and a half (3.5") and four (4") inch thick utilized in the safety zones under and around all areas, etc. as an impact absorbing resilient unitary rubberized safety surfacing, flooring and paver application. "Soft-Land" is designed to meet ADA, CPSC, ASTM and USGBC-LEED requirements. Acceptable substrates and substitute systems are: concrete (cement), asphalt (blacktop). As well as: compacted crushed stone, RCA, stone blend (call for details and specs), wood decking, roofing membranes (call for details and specs), indoor flooring and surfacing systems that do not have stress cracks, Unity Creations, Ltd. / Unity Surfacing Systems shall approve other substrates. Conditions of all substrates with respect to structural performance shall be evaluated and approved by the certified applicator prior to installing the "Soft-Land" series using the "step-&-repeat" system.

### **General Submittals**

Product data in the form of manufacturer's technical data, specifications and installation instructions. Submit product samples of unitary rubberized safety surfacing, flooring and pavers in all available colors. Submit product samples showing both the "male" and "female" interlocking connection, as well as the bolt-down mechanism. Submit shop drawings showing layout of safety surfacing, flooring and pavers; include edge detail(s), cut paver detail(s), fastening detail and details at penetrations for playground equipment.

### **General Delivery, Storage and Handling**

All materials shall be delivered in good condition in its original unopened packages, bound and shrink wrapped with labels intact. All materials shall be protected from weather; and the adhesive (glue) shall be stored at temperatures of 40 degrees Fahrenheit (4 degrees Celsius) or greater.

### **General Job Conditions**

At the time of application ambient air temperature shall be 40 degrees Fahrenheit (4 degrees Celsius) or greater for a period of twenty-four (24) hours. All materials shall be un-stacked and layed out prior to installing. Color blending may be necessary to achieve uniformity. All materials shall be protected from weather and other damage prior to application, during applications and while glue is curing.

### **General Alternatives & Allowances**

The architect and / or engineer, in writing, prior to bid date, shall approve any system or series, to be considered equal to "Soft-Land". Samples of equal materials showing self-interlocking connection and bolt-down capabilities, in all colors, must also be submitted prior to bid date.

### **Products: General**

All material components of the "Soft-Land" series shall be obtained from Unity Creations, Ltd. / Unity Surfacing Systems or its authorized distributors and / or manufacturers only. "Soft-Land" shall be manufactured in the United States of America, and meet standards specifications set herein.

### **Products: Materials**

Unity Creations, Ltd. / Unity Surfacing Systems: tiles/mats/blocks shall be produced on a rectangular configuration of 22" (inches) by 44" (inches) in size with a shadow-center (fake seam) joint to achieve the use of the "step-&-repeat" system to stagger (zigzag) the seams as if you were installing brickwork, lining real seam up with fake seams. As a result, symmetry of 22" by 22" squares will be seen on properly completed jobs (installations). Each tile-mat-block is 6.72 square feet in size and has a coned (feet &/or leg) bottom design. Thickness is two and a half (2.50") inch thick for the "Soft-Land" series to meet an eight (8'), ten (10') and twelve (12') fall rating (please consult with the contractor, architect, and or, engineer to determine which thickness is needed based on drop height requirements).

### **Testing:**

**ASTM:** American Standard for Testing Materials. **CPSC:** Consumer Product Safety Commission. **ADA:** Americans with Disabilities Act. **USGBC-LEED:** United States Green Build Council – Leadership in Engineering and Environmental Design

Shall be tested for the following technical specifications: **Fall Safety Heights:** ASTM F 1292-04, F-355-04. To meet an eight (8'), ten (10') and twelve (12') foot fall rating; **Weathering (Aging):** ASTM C-67, D-573, F1292-95 To meet an eight (8'), ten (10') and twelve (12') foot fall rating; **Spread of Flames:** ASTM E108, E108 modified for roof coverings and E648 Class I: Minimum 0.45 watts/cm<sup>2</sup>; **Skid Resistance:** ASTM 303-93; **ADA:** Standard Spec for Determination of Accessibility of Surface Systems under and Around Playground Equipment: ASTM F-1991-99; **R-Value:** Thermal Conductivity ASTM: C518-98; **LEAD Content:** CPSC-CH-E1002-08 via US Public Law 110-314 (HR 4040 act of 2008); **Reflectance/SRI & Emittance:** ASTM E903, E-891, E-1980; **Water Penetration:** Storm Water Management / Sustainable Run-off via drain ability; **USGBC:** Five (5) LEED Points / Credits; MR 4.1, MR 4.2, MR 5.1, MR 5.2, MR 2.1 & MR 2.2, EQ 4.1. **Glue:** "Unity's" Chemrex 948 Urethane (glue), shall be a one-part binder, requiring no on site mixing. Excellent strength, tenacity and grab for male interlock-to-female interlock as well as product-to-sub base installations. **Bolts:** "Unity's" Screw-Bolts shall contain a weather-resistant beveled recess-able head to be counter-sunk through the interlock; shall be a length necessary to securely fasten the tile/mats/block to the solid sub-base material. Excellent strength and grab for product-to-sub base installations. DO NOT USE BOLTS ON ROOFTOP INSTALLATIONS.

### **Exclusions:**

**Inspections:** Prior to application of the Unity Creations, Ltd. / Unity Surfacing Systems "Soft-Land" series: the installer shall evaluate the substrate's structural performance. Notify all contactors, architects and engineers of all displacements or stress cracks. Work shall not proceed until unsatisfactory conditions are corrected and signed by the contractors, architects and engineers; And Unity's installation manual/guide has been read.

**Installations:** Recessed installations are strongly encouraged to avoid the use of transitional ramps (edging). Contractor shall first install an approved solid sub-base material consisting of concrete (cement), asphalt (blacktop) roofing membrane or approved equal. Approved sub-base material shall extend three (3") inches past the desired safety surfacing, flooring and paver zone of installation. Once cured, Unity Creations, Ltd. / Unity Surfacing Systems products shall be installed as specified. After completion of Unity Creations, Ltd. / Unity Surfacing Systems products, an approved boarding system consisting of concrete (cement), asphalt (blacktop) fence or approved equal shall be installed to be level with the finished edge of the newly installed Unity Creations, Ltd. / Unity Surfacing Systems products. Said boarding system shall connect with the newly installed tiles/mats/blocks.

Unity Creations Ltd. / Unity Surfacing Systems products shall be installed using the "step-&-repeat" system to stagger (zigzag) the seams as if you would install "brickwork", so real seams line up with fake seams. Adhesive shall be applied to the interlocks and base\*, especially the corners of each product being installed. Screw-bolts shall be applied through the interlocks, and counter-sunk. Products shall be cut and aligned as required to fit without any gaps. The installation manual / guide shall also be read in full.

\* **Base gluing (glue-down) and screw-bolts do not apply to rooftop installations. Glue being applied to the interlocks, both in the joint and on top of the joint, shall be maintained.**