

A division of Unity Rubber Products, LLC.

"Unity" Surfacing Systems™

Presents



TOUGH-LAND

TILES
MATS
BLOCKS

Tough-Land is Unity's 1/2", 3/4" and 1" (inch) thick solid tiles-mats-blocks with a *solid bottom design* made from 100% recycled (waste) tires and rubber. They are ideal for indoor and outdoor use in such places as weight rooms, golf facility, walkways, athletic & work areas, ice rinks, ski lodges, entrance & exit ways, factories, basements, walls and many other high traffic areas. They are also found in areas that support heavy weights and/or objects. **SIZE, WEIGHT, LONGIVITY, SAFETY, QUALITY & DURABILITY** are standard of our products. Tough-land is easy to clean. The low life cycle cost makes for very good footing and helps to prevent leg fatigue. **Tough-Land** is a noise reducing, puncture resistant product that can withstand heavy blows and is accessible to the handicapped. It is easy to install and is fully warranted and therefore a superior product that no one can match.

Not only are the tiles-mats-blocks resilient and can be installed over new and existing surfaces, but they are also *independently laboratory tested* meeting or 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.

Demand for indoor and outdoor applications of Unity's rubberized safety surfacing, flooring and paver products is increasing in popularity more than ever before. Many facilities across the United States and the world are being fitted with our **Tough-Land** products as the newest alternative to flooring, surfacing and wall applications. As a member of the USGBC (United States Green Building Council) you may be eligible to receive "LEED" points and/or credits when using our recycled products and services.

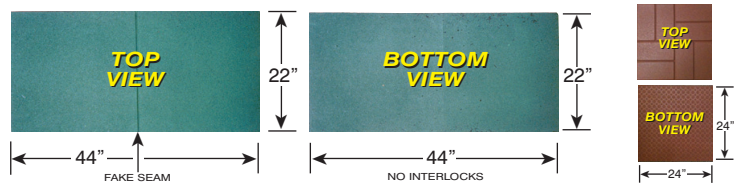
Unity's Tough-Land has a unique solid bottom design. We have passed several Class A fire tests in addition to a skid resistance test wet or dry. Along with; void volume, density and abrasion tests. It's a product that consists of high-density materials that are conducive for heavy use and objects. It will resist strain yet offer long lasting comfort. This is clearly a safe surface that everyone can enjoy.

The attractive look of the product stems from the wide variety of colors that are available. The colors can enhance the look of any surfacing and flooring designs and/or patterns to be created. Colored tiles mats-blocks prevent heat build up, which can often occur on **other** surfaces. Architects and engineers can plan for future projects using our **Tough-Land** flooring and surfacing products using eleven (11) different color choices. We can also provide you with unlimited design potential incorporating our EPDM granules. These EPDM granules can be mixed/ blended to your liking.

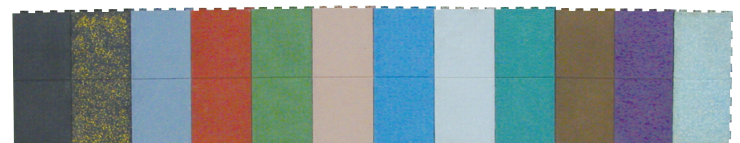
Installation of this product is placed in the intermediate category. Adhesive may be applied to the base and/or sides of the product for extra strength and security. A utility knife or jigsaw can be used for cutting and a straight edge can make all your cuts accurately. A straight line and tape measure are also needed. If gluing, a trowel or caulking gun are needed.



TECHNICAL DATA



COLORS



THICKNESS	WEIGHT PER UNIT	WEIGHT PER FOOT
1/2" (inch)	13.44 lbs.	2 lbs.
3/4" (inch)	20.16 lbs.	3 lbs.
1" (inch)	26.88 lbs.	4 lbs.



ADA



General Description

All necessary material components and application information required to install the molded one (1.0") Tough-Land series, composed of clean rubber granules, using the "step-&-repeat" or 2-vertical/2-horizontal system, gluing the sides, 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 sides (toward the bottom) as well as to the base (underside) for product-to-product and product-to-sub base adhesion. **Design & Detailing** : The "Tough-Land" series is half-inch (1/2"), three-quarter inch (3/4") &/or one-inch (1") 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. "Tough-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 "Tough-Land" series using the "step-& repeat" system or the 2-vertical / 2 horizontal 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 "top" and "bottom" design. 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 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 cool and dry 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 "Tough-Land". Samples of equal materials showing the top and bottom, in all colors, must also be submitted prior to bid date.

Products: General

All material components of the "Tough-Land" series shall be obtained from Unity Creations, Ltd. / "Unity Surfacing Systems or its authorized distributors and / or manufacturers only. "Tough-Land" shall be manufactured in the United States of America, and meet standards specifications under the LEED (Leadership in Energy and Environmental Design) criteria developed by the USGBC (United States Green Building Council) establishing points / credits.

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; Or using the two (2) vertical (||) then two (2) horizontal (=) way of installation. 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 solid bottom design. Thickness is half-inch (1/2"), three-quarter inch (3/4") &/or one-inch (1") (please consult with the contractor, architect, and or, engineer to determine which thickness is needed based on necessary 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: **Weathering (Aging)**: ASTM C-67, D-573, F1292-95; **Spread of Flames**: ASTM E108, E108 modified for roof coverings and E648 Class I: Minimum 0.45 watts/cm²; **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 product-to-product as well as product-to-sub base installations.

Exclusions:

Inspections: Prior to application of the Unity Creations, Ltd. / Unity Surfacing Systems "Tough-Land" series: the installer shall evaluate the substrate's structural performance. Notify all contractors, 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); Or any indoor flooring and surfacing system that does not have stress cracks or approved equal. Approved sub-base material shall be clean and dry. 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), wood, saddles, 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 with the necessary adhesive to secure it in place.

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; Or using the two (2) vertical (||) then two (2) horizontal (=) way of installation.. Adhesive shall be applied to the sides and base*, especially the corners of each product being installed. Products shall be cut and aligned as required to fit without any gaps. The installation manual / guide shall also be read in full.