



# TurfStone

TurfStone provides an alternative solution to the problem of permanently destroying green space when building parking areas or fire and emergency roads. The design, with 40% open area, allows ground cover to grow while providing the necessary structural strength for most traffic.

TurfStone offers excellent erosion control and soil stabilization to slopes, embankments, low flow channels and dikes, or ponds and reservoirs where there is no extreme wave action.

Use TurfStone for:

- Overflow or marginal parking areas
- Shoulders along airfields and highways
- Access roads adjacent to buildings
- Ditch lining
- Driveways
- Crossovers on medians
- Boat ramps
- Emergency fire lanes
- Bridge underpasses
- Embankments



## PRODUCT DATA\*

Coverage	Pieces per Pallet	Coverage per Pallet	Weight per Unit	Weight per Pallet
2.6 ft <sup>2</sup> / pc (.24 pcs / m <sup>2</sup> )	35	91 ft <sup>2</sup> (8.45 m <sup>2</sup> )	65 lb (30 kg)	2,325 lbs (1,055 kg)

All **Weight per Pallet** noted above include a 50 lb pallet weight.

\* All metric dimensions are soft converted to Imperial. Dimensions and coverage include 1/16" (1.5 mm) joint.

### TurfStone Unit

3 1/2" x 23 5/8" x 15 3/4" x  
4 cm x 60 cm x 40 cm



## STANDARD SPECIFICATION

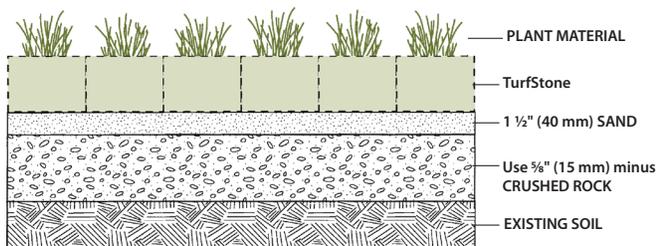
TurfStone units are manufactured to industry standard specification ASTM: C 1319-97.

## AVAILABLE COLORS

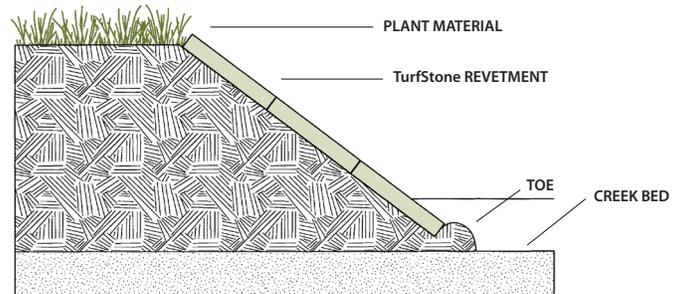
For more information about custom colors, please contact a Mutual Materials sales representative. Custom colors may be restricted by the size of the order or project.

## CROSS SECTIONS

### Typical Installation Over Dense Graded Base\*



### Typical Embankment Erosion Control\*



\* Note: See ICPI Tech Spec #8 for more specific application information and construction details.

## INSTALLATION INSTRUCTIONS

**NOTE:** The following steps are for designs using dense-graded base. Open-graded base designs may also be used with TurfStone to promote infiltration. See ICPI Tech Spec No. 8 for more specific design and installation information.

- 1. Excavate** to the design levels.
- 2. Compact the subgrade** to the required density.
- Lay the gravel base in 2"–3" layers, compacting after each layer. Repeat steps until final base elevation is achieved. Residential (pedestrian) 4" thick gravel base; residential (vehicular) 6"–8" thick. Build to a smooth uniform surface to the grade and cross section required.

The minimum surface tolerance of the compacted base should be  $\pm \frac{3}{8}$ " ( $\pm 10$  mm) over a 10 ft (3 m) straightedge. The base should extend beyond the perimeter of the grids a minimum of 12 in. (300 mm) when there is no building or curb to restrain them. The extended perimeter increases the stability of the TurfStone and allows for installation of edge restraints.

- 4. The gradation of the bedding sand should conform to ASTM: C 33 (6) or CSA A23.1 (7).** Limestone screenings, stone dust, or masonry sand should not be used. The thickness of the bedding sand should be 1 to 1 ½" (25–40 mm). Use a screed board over the screed rails or bars to establish a consistent sand thickness. The sand should have a consistent moisture content but not be saturated. Do not disturb the screed sand prior to placing the grids.

- 5. Do not allow** any vehicular traffic on the TurfStone installation until the grid openings have been filled. TurfStone are typically placed on the screeded bedding sand in a running bond pattern with the minimum joint spacing of  $\frac{1}{16}$  to  $\frac{3}{16}$ " (2–4 mm). If the grids touch, they may crack, chip, or spall under repeated traffic. The smooth side is the bottom of each unit. After the grids are placed, go over them with a plate compactor. It should have a minimum centrifugal compaction force of 5,000 lbs (22 kN). A rubber or neoprene mat should be attached to the plate of the compactor to protect the grids from cracking and chipping.

The units should be cut to fill any spaces along the edges prior to compaction. All installed units should be compacted into the bedding sand at the end of each day. If bedding sand is left non compacted, it should be covered with plastic to protect it from rain (rainfall settles non compacted sand, preventing the grids from pressing into the sand when compacted.) Otherwise, bedding sand saturated with rainfall prior to compaction will need to dry, be raked and re-screeded, or be replaced. If left uncorrected, the grids will settle unevenly and may move under traffic.

- 6. After the grids are installed and compacted,** a mix of topsoil and grass seed can be spread across the grids and swept into the openings. Fertilizer may be mixed with the topsoil as well. Fertilizer quantities should be adjusted to account for the concrete surface.

- 7. Compact the TurfStone again** until the final level of the topsoil is about ½" (13 mm) to ¾" (20 mm) below the top surface. This will lend protection from tires as the grass grows. Straw can be applied to protect the grass while it is growing. While labor-intensive, sod plugs can be inserted into the openings as an alternative to topsoil and seeding. If using sod, it should be applied after the second or final compaction of the grids, but with a reduced amount of topsoil in the openings so space is available for the sod plugs.

**NOTE:** A drought tolerant grass should be used when installing TurfStone applications.

## MUTUAL MATERIALS LOCATIONS

For product information and customer service, call **1-888-MUTUALØ (688-8250)**.

### Washington

Auburn  
Bellevue  
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