## INDIANA LIMESTONE

Pavers: Tested to Prove Their Durability **Indiana Limestone Company** is the first manufacturer to test the durability of Indiana Limestone pavers installed over a compacted aggregate base. Under freeze / thaw conditions, in wet and dry conditions, and with 400,000 simulated footsteps, the pavers performed to our series of challenges.

Indiana Limestone pavers meet the ASTM C936 standard for freeze / thaw durability, are resistant to staining from underlying aggregate when properly dampproofed, and stand up to residential pedestrian use when installed over aggregate.

Numerous landscape and hardscape designs, especially for residential applications, feature paving installed over compacted aggregate. Two industry standards and one specifically designed durability test were conducted by a third-party engineering laboratory to establish that installing Indiana Limestone pavers over aggregate is an acceptable installation method.

#### **Resistance to Freezing and Thawing**

Indiana Limestone pavers passed by a wide margin (losing only 0.3% of the allowed mass loss of 500g/m<sup>2</sup>) in tests to ensure they satisfied resistance to freezing and thawing requirements. Tests of representative samples were conducted according to the industry standard performance criteria as specified in ASTM C936, Section 5.5 (ASTM C1645).

Specimen	Visible Degradation Observed?	Total Residue Mass (g)	Mass Loss (g/m²)	ASTM C936 Evaluation Result
Average of 5	N/A	0.289	1.31	Meets as Stated

Testing of representative samples performed by Intertek (report H6398.01-106-00).

#### No Staining from Environmental Exposure

Indiana Limestone pavers were tested on aggregate beds to ensure that setting materials would not leach through and stain properly dampproofed pavers. After running the pavers through cycles of wet and dry conditions, the independent lab reported there was no staining.

Sample	Hours in Chamber	Observation
For each of 4	168	No staining was observed

Tested in cycles of misting conditions and 110°F for 8 hours, 20% relative humidity and 110°F for 8 hours, and 72°F for 8 hours. Repeated for 168 hours total per sample. Testing of representative samples performed by Intertek (report 103019032GRR-001).

### Durability

Indiana Limestone pavers were tested in fixtures on properly compacted aggregate bedding to ensure that they would withstand typical residential pedestrian use. The pavers withstood 100,000 cycles of 225 pounds of force being applied and released with no observable negative effects.

Sample	Number of Cycles Completed	Observation
For each of 4	100,000	No noticeable defects

Testing of representative samples performed by Intertek (report 10319032GRR-001).

# Details on grades of aggregate, compaction standards, installation methods, and best practices are outlined in our new product guide and at IndianaLimestoneCompany.com.

Note: Installation details may need to be modified for commercial applications, to conform to local building regulations, or use alternative and locally available aggregate materials. Consult with a landscape architect, installation professional, or engineer regarding your commercial products or if specified installation materials are not available in your area.

