

UNI-GROUP U.S.A.

Technical Data

Composition and Materials

UNI[®] Interlocking Concrete Paving Stones are comprised of Portland cement, a small amount of water, and fine and coarse aggregates. Colors and admixtures are often added to this "no-slump" or "zero-slump" concrete mix. UNI[®] Manufacturers use state-of-the-art paver production equipment that molds the pavers using extreme pressure and high-frequency vibration. Some manufacturers may utilize special surface finishes such as sand blasting, bush hammering, tumbling, and polishing for a specialty architectural appearance. Consult with your local UNI[®] Manufacturer for availability of specialty finishes.

A white deposit known as efflorescence may sometimes appear on any concrete or masonry product. It does not affect structural integrity and will eventually dissipate over time. Efflorescence is not indicative of a flawed product. It may be removed with specialized cleaners if desired. Your local UNI[®] manufacturer can recommend products to remove efflorescence.

Physical Characteristics

UNI[®] Concrete Pavers are manufactured to meet or exceed the requirements of ASTM C 936 - Standard Specification For Solid Interlocking Concrete Paving Units. They have a minimum compressive strength of 8,000 psi, a maximum water absorption of 5%, and will meet or exceed freeze-thaw testing per section 8 of ASTM C 67. Most UNI[®] Pavers are manufactured in 2 3/8 inch (60 mm) and 3 1/8 inch (80 mm) thicknesses.

UNI[®] pavers are manufactured with chamfered top edges which minimize chipping and spalling, facilitate the removal of water from the surface of the pavers, and allow for snow removal by plowing. Most UNI[®] pavers are made with spacer bars on the sides of the unit which automatically provide the minimum joint width when installed. UNI[®] pavers meet or exceed pedestrian slip resistance guidelines recommended in the Americans with Disabilities Act (ADA).

Consult your local UNI[®] Manufacturer regarding availability of colors and blends for your area.

Application Standards

For pedestrian applications such as walkways, patios, pool decks, courtyards, plazas, and residential driveways 2 3/8 inch (60 mm) thick pavers are usually recommended. Vehicular trafficked pavements typically require the 3 1/8 inch (80 mm) thick paver units.

Interlocking concrete pavements are typically constructed as flexible pavements - with a compacted soil subgrade, compacted aggregate base, and a sand bedding course. The joints between the pavers are filled with sand and the pavers are compacted, creating interlock and transferring loads to the surrounding pavers by shear forces through the joint sand. This enables loads to be spread in a manner similar to asphalt flexible pavements and reduces the stresses on the base and subgrade.

Pavement design varies with climate, available construction materials, design methods, soil conditions, and traffic load. A qualified engineer, architect, and/or landscape architect should be consulted in interlocking concrete paver applications to ensure desired results.

Advantages and Benefits

After UNI[®] Interlocking Concrete Pavers have been trafficked, they stiffen and increase their structural capacity over time. The structural contribution of the pavers and sand bedding layer typically exceeds that of an equivalent thickness of asphalt. UNI[®] Pavers are high-quality, extremely dense units which possess exceptional strength and durability, superior stability under severe loads, and are unaffected by the extremes of heat and frost. They can be used in any climate and can be trafficked immediately upon compaction. The joints between the pavers eliminate the cracking common with traditional asphalt and concrete pavements. Unlike asphalt or concrete pavements, concrete pavers allow easy access to underground utilities for repairs, and the same pavers can be reinstated without an unsightly patch. Pavers are low-maintenance and offer low life-cycle costs.

The many shapes, patterns, and colors of UNI[®] Concrete Pavers allow for design creativity, as well as delineation of pavement areas, such as parking lanes, cross walks, and intersections.

UNI Eco-Stone[®] permeable pavers have the same benefits as our conventional interlocking concrete pavers, but also feature the added advantage of infiltration of rainwater for stormwater management and control.

When properly installed, interlocking concrete pavements require virtually no maintenance. As with all pavements, they can become soiled over time. Specially formulated cleaners are available to clean and maintain interlocking pavements. You may also wish to seal your pavement which gives the pavers a "wet-look" and deepens the color. Sealing can also help protect your pavement from spills. However, it is not necessary to seal interlocking pavers. Contact your local UNI[®] Manufacturer for information on cleaning and sealing products for concrete pavers.

Price

Prices will vary depending on the project size and location, pattern, thickness, color or colors, and construction requirements of the project. Please contact your local UNI[®] Manufacturer for pricing, product availability, color selection, samples, and shipping information.

Please consult our web site for detailed information on specification, installation, patterns, cross-sections, and Lockpave Pro[®] design software, as well as a list of manufacturers.