

# Installation & Technical Guide to Tumbled Stone

## Delivery, Storage and Handling

- Product will be supplied adequately packaged on pallets or timbers to keep finished stone clear of the ground.
- Storage area should be a well-drained space graveled or chipped for protection against mud splatters.
- When using pry bars to move stone into place, use padding to protect the edges of the stone.

## Protection of Base Courses & Unfinished Work

- To avoid possible unsightly stains caused by mud or other splashing, the ground at the base of the structure should be covered with protective material during construction. This should be left intact until landscaping is complete.
- During construction, tops of walls should be carefully protected to prevent rain, snow, or seepage from entering space between veneer and backing.

## Setting Mortar

- Setting mortar shall be ASTM C-270 Type N composed of one part Portland cement, one part mason's lime, and six parts sand mixed with potable water or one part masonry cement and two and three-fourths part sand mixed with potable water.

## Anchors

- Anchor ILC veneer securely to sheathing, wood framing, or masonry backing. Use galvanized iron wall ties. These ties should be spaced approximately 24" vertically and 18" horizontally.

## Cleaning

- After mortar has set, the wall should be brushed down with a stiff fiber brush, and then carefully rinsed with clear water to remove any accumulation of stain or matter foreign to the Limestone.

## Damp proofing

- Where limestone is to be used at or below grade, damp proofing must be applied.
- Damp proofing the face of backup or structural concrete is helpful, but is not a substitute for back painting the stone.
- Where limestone is to be covered by soil or paving at grade, and where the stones will present an evaporation surface above grade, the damp proofing must be carried up the partially exposed face at least to grade level.
- ILC recommends a cementitious based waterproof coating such as Thoroseal.

## Properties of Indiana Limestone

Most building designs that incorporate Indiana Limestone consider these properties:

### Ultimate compressive strength of dry specimens

Value: 4,000 psi min.\* Test STD: ASTM C170

### Modulus of rupture of dry specimens

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Value: 700 psi min.\*\* Test STD: ASTM C99

## Absorption

Value: 7.5 % max. Test STD: ASTM C97

*\*Most Indiana Limestone products indicate min. values in excess of 4,000 psi, but this value is listed as an engineering reference.\*\*Wind load and other bending forces are typically calculated at 1,000 psi for modulus of rupture. NOTE: All Indiana Limestone meets or exceeds the strength requirements set forth in ASTM C-568 for Type II Dimension Limestone.*

When used in flooring, paving, or steps, the abrasion resistance should be specified.

## Abrasion Resistance

Value Range: (Abrasive Hardness)

6 min. to 17 max.† Test STD: ASTM C241

*†Stone preparation and installation details are important in assuring hardness of 8 for heavy traffic areas. Specify abrasive hardness of 6 for light traffic areas such as patios, plazas and wide sidewalks.*

*For more information, call Indiana Limestone Company at 800-457-4026. Portions of this technical information provided by the Indiana Limestone Institute of America, Inc.*

## Diagram of Veneer Installation

