



ECO friendly porous paving made with recycled tires

A FLEXIBLE POROUS PAVING

DEFINITION

- A. Flexible Porous Paving: Paving system comprised of combination of three components: recycled passenger car tires, aggregate, and urethane binder that provides a strong, pervious, yet flexible paving.

INSTALLER QUALIFICATIONS

- A. Flexible Porous Paving installer shall be required to be familiar with installation procedures and to have attended the Manufacturer installation training program.
- B. Flexible Porous Paving installer shall employ no less than two Manufacturer-trained Flexible Porous Paving technicians on staff who directly oversee and perform the installations during all Flexible Porous Paving placement.

PROJECT CONDITIONS

- A. Protect stored rubber and aggregate from moisture by covering material with sheet plastic. Binder to be stored within a temperature range of 45 to 90 degrees F.
- B. Avoid placing pervious paving if rain, snow, or frost is forecast within 24 hours. Protect fresh paving from moisture and freezing.
- C. Base aggregate shall be a clean #57 stone.

FLEXIBLE POROUS PAVING

- A. Stone: Triple-washed and dried coarse aggregate (1/4 to 3/8 inch) per ASTM C 33. Bagged in 50 lb. quantity.
- B. Nominal maximum aggregate size shall not exceed 1/3 of the specified paving thickness.
- C. Rubber: Recycled passenger tires ground to 1/4" nominal with wire remnants removed.
- D. Binding agent: urethane liquid prepolymer based upon DiphenylmethaneDiisocyanate.
- E. Mix Design: Using materials mix ratio as acceptable by the Manufacturer for the intended application.
- F. The volume by weight of aggregate shall be as required by the Manufacturer for the intended application.
- G. Forms shall be clean and free of debris of any kind, rust, and hardened concrete and make use of a Bio-diesel or vegetable oil as a form release.

EXECUTION

- A. Prepare subgrade as specified in the contract documents or as directed by the Engineer. Porous Flexible Paving has a thickness of 1.5", over Clean Coarse Aggregate (#57 stone)

with 95% compaction per AASHTO T-180, with an ideal thickness of 4 inches over stabilized sub-base,

- B. Construct subgrade to ensure that the required paving thickness is obtained in all locations.
- C. Keep all traffic off subgrade during construction to the maximum extent practical.
- D. Apply form release agent to the temporary form face which will be in contact with pervious paving, immediately before placing paving.
- E. Protect previously placed paving from damage.
- F. Apply liquid urethane bonding agent to face of surfaces when adhesion is desired

MIXING

- A. Mix on site in compliance with Manufacturer's written specifications.

PLACING AND FINISHING PAVING

- A. Do not place Flexible Porous Paving on frozen or wet subgrade or subbase.
- B. Deposit Flexible Porous Paving either directly onto the subgrade or subbase by wheelbarrow or by material handler onto the subgrade or subbase, unless otherwise specified.
- C. Deposit Flexible Porous Paving between the forms to an approximately uniform height.
- D. Spread the pervious paving uniformly to the required elevation and screed to achieve a uniform flat surface.

FINAL SURFACE TEXTURE

- A. Final surface of pervious paving shall be smoothed with bull float and magnesium hand floats coated with a soapy water film.

EDGING

- A. When permanent forms are not used, bevel the edge of the top surface to a 45⁰ slope

CURING

- A. Completely cover the paving surface with a minimum 4 mil thick polyethylene sheet if rain or sprinklers are imminent.
- B. Cure paving for a minimum of 24 uninterrupted hours, unless otherwise specified.

HOT- AND COLD-WEATHER CONSTRUCTION

- A. When hot weather is anticipated up to 95 degrees Fahrenheit, no special procedures are necessary.
- B. In cold weather when temperatures may fall below freezing utilize a fan to maintain airflow over the paving to speed up the curing process.