

SECTION S409 – FLEXIBLE POROUS PRODUCT

S409-1 DESCRIPTION

Work consists of placement of flexible porous product as required in Contract Documents and as directed by Project Manager.

For purposes of this specification, all references are in accordance with *NYSDOT Standard Specifications (US Customary Units dated May 1, 2008)* edition, including any addenda.

S409-2 MATERIALS

Flexible porous product is to consist of 3/8 inch nominal recycled rubber granules and 1/2 inch nominal aggregate, bonded with single-component, moisture-cured urethane. Color of flexible porous product will be as specified in Contract Documents, or as required by Project Manager prior to ordering product.

Flexible porous product is to be Flexi-Pave as manufactured by KB Industries, Inc.; RubberWay Sidewalks and Tree Wells as manufactured by World Recycling Surfacing Group; Eco-Rubber Pour in Place Rainbow Turf as manufactured by Eco-Smart, Inc.; or approved equivalent.

Flexible porous product is to meet or exceed following properties:

Property	Test	Results
Permeability		minimum 0.15 cm/sec permeability rate
Rut Resistance	TX DOT 242-F	less than 2.5 mm rut depth @ 8000 cycles
Static Creep	TX DOT 231-F	total strain = 2.7% permanent strain = 0.5%
Resilient Modulus	ASTM D4123	65000 or greater
Slip Resistance	ASTM D2047	greater than 0.6
Scuff/Power Steering Resistance	ISSA TB 100 Wet Track Abrasion	1 hour = 16.5 grams/sf 6 days = 17.5 grams/sf

At least 2 weeks prior to placement, submit mix design and manufacturer's installation guidelines to Project Manager for approval.

Asphalt tack coat and prime coats are not applicable to this product.

S409-3 CONSTRUCTION DETAILS

S409-3.01 General

Subbase material will be as specified in Contract Documents. Subgrade is to be free of all foreign material, and compacted to an even surface that is parallel to finish grade.

Prior to placing flexible porous product, coat all contact surfaces of curbing, sidewalk, manholes, valve boxes, and other structures with thin uniform coating of polyurethane binding agent as supplied by manufacturer, or approved equivalent.

Flexible porous product can be installed when surface temperature of subgrade is 50°F or above. Moisture content of subgrade material is to be evaluated and if necessary amended, in accordance with manufacturer's instructions.

Flexible porous product is not to be placed when atmospheric temperature is below 50°F, or when weather is foggy, rainy or otherwise unfavorable.

Due to porous nature of flexible porous product, attaining grade and crown sufficient to provide adequate drainage is not applicable. During installation and compaction of subbase materials, grade and drainage conditions should be considered and evaluated to avoid over-compaction, or creation of areas of potential ponding.

Flexible porous product is not to be installed in layers, but in one continuous pour. Spreading and finishing of flexible porous product surface is to proceed such that required full width of section will be completed without formation of longitudinal joints. Longitudinal or transverse joint staggering is not applicable to this product. Finished surface of flexible porous product is to be smooth and true to existing or established grade.

Flexible porous product that becomes plugged with dirt, or in any other way becomes defective during construction, is to be removed and replaced at no additional cost to owner.

S409-3.02 Tree Pit

When installing flexible porous product in tree pit, leave 3 to 4 inch opening around and between tree and flexible porous product. Opening is to be filled with un-bonded portions of flexible porous product, and single-component moisture cured urethane binding agent drizzled over surface of flexible porous product.

S409-3.03 Warrantee

Contractor is to replace sections of flexible porous product that become loose or broken within 1 year of placement, at no additional cost to owner.

S409-4 METHOD OF MEASUREMENT

Quantity to be measured for payment will be number of square feet of flexible porous product installed.

Measurement for porous flexible product will be as noted, with measurement being rounded to nearest inch. For example, 1.4 inch will be made as 1 inch, 1.5 inch will be made as 2 inch.

S409-5 BASIS OF PAYMENT

Unit price bid includes cost of: preserve, safeguard and maintain existing trees and surrounding pavement surfaces; excavation and disposal of existing materials; preparation of subgrade; furnishing and installing flexible porous product; water; urethane binding agent; site cleanup; replacement of defective flexible porous product; and furnishing all labor, material and equipment necessary to complete work.

Furnishing and placing of subbase course material will be paid for under separate bid item.

Payment will be made under:

ITEM NO.	ITEM	PAY UNIT
S409.01	Flexible Porous Product (1 inch)	Square Feet
S409.02	Flexible Porous Product (2 inch)	Square Feet
S409.03	Flexible Porous Product (3 inch)	Square Feet
S409.04	Flexible Porous Product (4 inch and over)	Square Feet