

1729 - ANTI-GRAFFITI COATING

SECTION 1729

ANTI-GRAFFITI COATING

1729.1 DESCRIPTION

This specification covers anti-graffiti coatings, which are coatings applied to substrates to facilitate the removal of graffiti.

1729.2 REQUIREMENTS

a. General.

(1) Anti-graffiti coatings must not react deleteriously with above grade concrete, concrete block, exposed aggregate concrete, brick, stonework, painted steel, or aluminum substrates.

(2) The applied coating must produce a firm, continuous, uniform film that is free of pinholes, cracks, or other film defects and exhibit satisfactory adhesion. The consistency must be such that the coating can be satisfactorily applied by spray, roller, or brush at atmospheric and material temperatures above 50°F without thinning. When applied properly to vertical surfaces, the coating must remain uniform during the required curing period and must not sag, disintegrate, check, peel, or crack.

(3) The VOC content of the coating must comply with the current national rule for industrial maintenance coatings.

(4) When the Contract Documents specify the coating as clear or translucent, the coating must cure clear or translucent, as appropriate.

b. Specific. In addition to the general requirements of subsection 1729.2a, the coating must meet the requirements of Type II or Type III.

(1) Type II - Permanent. Type II coatings are chemically resistant coatings that allow removal of the graffiti with solvent or chemical graffiti removers. The use of graffiti removers, solvents, or both must not cause damage or pigment loss.

The color must match Federal Standard 595B, color number 35630 unless otherwise shown in the Contract Documents. When the Contract Documents specify another color, the color must match the color standard supplied by the Engineer. The Contract Documents may specify clear or translucent as a color.

Provide material complying with the requirements listed in TABLE 1729-1.

TABLE 1729-1: REQUIREMENTS FOR TYPE II COATINGS		
Property	Test Method	Requirement
Graffiti Resistance	ASTM D 6578	Cleanability Level 8, 9, or 10
Recleanability	ASTM D 6578	Min. 10 cycles
Fluid Resistance	ASTM D 1308 ^a	No blistering, discoloration, softening or adhesion loss
Set-to-Touch Time	ASTM D 1640 ^b	4 hr. maximum
Dry-Through Time	ASTM D 1640 ^b	24 hr. maximum

^a Spot Test using Paint Thinner and Gasoline

^b 3-mil wet film tested at 77°F.

(2) Type III – Permanent, Water Cleanable. Type III coatings allow for the removal of the graffiti with a high-pressure cold water wash. Coatings must be self-recoatible for the life of the coating.

The color must match Federal Standard 595B, color number 35630, unless otherwise shown in the Contract Documents. When the Contract Documents specify another color, the color must match the color standard supplied by the Engineer. The Contract Documents may specify clear or translucent as a color.

Provide material complying with the requirements listed in TABLE 1729-2.

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Property	Test Method	Requirement
Graffiti Resistance	ASTM D 7089	Cleanability Level 1
Recleanability	ASTM D 7089	Min. 10 cycles
Set-to-Touch Time	ASTM D 1640 ^a	4 hr. maximum
Dry-Through Time	ASTM D 1640 ^a	24 hr. maximum

^a 3-mil wet film tested at 77°F.

1729.3 TEST METHODS

Test in accordance with the requirements stated in **subsection 1729.2**.

1729.4 PREQUALIFICATION

a. Each anti-graffiti coating intended for use under this specification must be prequalified before use. Submit a written request for prequalification to the Bureau Chief of Construction and Materials. Provide the following documentation:

(1) Name, address, and telephone number of the manufacturer. Include the name and e-mail address of the preferred contact person.

(2) Brand name of the anti-graffiti coating.

(3) A complete description, literature, and set of instructions for removal of graffiti.

(4) Material Safety Data Sheets.

(5) A copy of test results performed as outlined in **subsection 1729.2b** from a recognized laboratory. Include evidence that the laboratory is regularly inspected. A recognized laboratory is one operated by any State Transportation Agency, the Federal Highway Administration, or any cement and concrete laboratory regularly inspected by the Cement & Concrete Reference Laboratory (CCRL) or the National Institute of Standards and Technology. Test results are to be no more than 24 months out of date.

(6) An infrared spectrum of the anti-graffiti coating which was used in the laboratory tests.

b. Submit a one gallon sample from production to the Engineer of Tests. All coatings will be fingerprinted using infrared spectroscopy for use in screening future verification samples to verify that materials submitted for use are of an identical formulation as originally approved.

c. The information, test reports and test results obtained at the Materials and Research Center on samples submitted, will be reviewed by the Bureau Chief of Construction and Materials. The manufacturer will be advised of the results.

d. The Bureau of Construction and Materials will maintain a list of prequalified products. Products that have been prequalified will remain prequalified as long as the formulation and manufacturing processes remain unchanged, and field experience indicates that the anti-graffiti coating functions appropriately. Changes in formulation or manufacturing processes will require new prequalification testing.

Failure of the material to function appropriately in the field will be cause for removal of the product from prequalified status. Products removed from prequalified status will be considered for requalification if the manufacturer can provide evidence that the cause of failure has been positively identified, and necessary formulation changes and/or quality control measures have been implemented to prevent future failures. Complete prequalification testing may be required for products that have been removed from prequalified status.

1729.5 BASIS OF ACCEPTANCE

Prequalification as specified in **subsection 1729.4**.

Receipt and approval of a Type C certification as specified in **DIVISION 2600**.