

ITEM 601.02 24 - INTEGRALLY COLORED HOT APPLIED POLYMER WEARING SURFACE - COARSE AGGREGATE TYPE F2 CONDITIONS

DESCRIPTION

Construct inlaid architectural pavement treatments for use under vehicle traffic as shown on the Contract Documents.

MATERIALS

Binder.

- Designed specifically for use as a textured wearing surface for traffic conditions.
- Integrally colored as to achieve a final product meeting the color requirements of the contract.
- Provide a firm bond to concrete or asphalt.
- Provide a durable surface and texture which will not deform under traffic.

Aggregates. Submit aggregate samples to the Materials Bureau for approval 45 days prior to use. Additional quality assurance samples will be retrieved during installation and submitted for testing at a minimum rate of 1 liter can sample per 84 square meters.

Coarse Aggregates: Product shall meet Standard Specifications Section 401-2.02 B. *Coarse Aggregate Type F2 Conditions* and a gradation of 100% passing the 12.5 mm sieve.

Fine Aggregates: As recommended by the pavement treatment manufacturer. Submit aggregate samples to the Materials Bureau for approval 45 days prior to use.

Gradation:

Sieve Size	Percent Passing
850 µm	100
600 µm	40-100
300 µm	1-3
150 µm	0 - 0.3

Apply fine aggregate as a topping material at a rate of approximately 46 kilogram per 42 square meters of surface area.

CONSTRUCTION DETAILS

The Contractor shall submit to the Engineer for approval, all product data on the proposed system, samples of the system displaying the specified colors, and the information on the equipment used in the installation process.

Construct according to manufacturer’s recommendations, using licensed or certified applicators and/or a manufacturer’s representative on site during placement.

If a primer is required, the Contractor shall use a manufacturer-recommended primer. Heat the pavement treatment in accordance with manufacturer’s recommendations using a thermostatically controlled pre-heater capable of continuous material agitation. Heating of the pavement treatment by direct flame is not allowed. Only use heating equipment that has been approved by the Engineer.

Place the pavement treatment at a thickness of 20 mm (± 3 mm). Interfaces with adjacent surfaces shall

ITEM 601.02 24 - INTEGRALLY COLORED HOT APPLIED POLYMER WEARING SURFACE - COARSE AGGREGATE TYPE F2 CONDITIONS

be flush, providing smooth transition from surface to surface. All surfaces must be dried and cleaned by use of mechanical sweepers, high pressure air or other methods approved by the Engineer prior to use. Surfaces must be free of all dirt, oil, debris and any other material that might interfere with the bond between the pavement treatment and existing surfaces.

Use a hot compressed air lance (HCA) on existing surfaces immediately prior to application of the pavement treatment, to remove any remaining dust and promote good adhesion to the substrate. Use masking tape or other suitable material to protect the area adjacent to the installation. Install grade control devices to ensure the required thickness of the pavement treatment is installed. The method and material used for grade control must be pre-approved by the Engineer.

Temperature Requirements

- Surface temperature must be 2°C minimum before application of material or any additional external heat.
- Preheat the pavement treatment between 191°C -219°C.
- Fine aggregates must be completely dried before application to ensure proper adhesion to the material. A hot compressed air lance may be used to thoroughly dry and preheat the fine aggregate.
- Do not place material when the ambient air temperature is below 5°C.

Apply, uniformly spread and smooth out the material between the grade control forms utilizing hot irons as recommended by the manufacturer. Apply preheated fine aggregate after the material has been smoothed out and before texturing.

Surface Texture. If specified, texture the semi molten material, immediately after the fine aggregate application, using an approved mold capable of providing a 6 mm (± 1.5 mm) deep and wide imprint, in accordance with the design details shown on the plans. Use a manufacturer approved release agent to prevent the pavement treatment from sticking to the mold.

Basis of Approval. All systems shall have completed a successful trial installation of approximately one year at a location approved by the Main Office Materials Bureau. Prior to acceptance, the Manufacturer shall submit to the Department for approval, all product data and MSDS sheets on the proposed system, samples of the system displaying the colors available, and the information on the heating system and any other equipment used in the installation process.

Basis of Acceptance. The hot-applied polymer binder and natural aggregate system must meet the requirements of this specification and have Manufacturer's certification that it meets the requirements of this specification. Contact Main Office Materials Bureau for currently approved systems.

METHOD OF MEASUREMENT

This work will be measured as the number of square meters of architectural treatments installed satisfactorily.

BASIS OF PAYMENT

The unit price bid per square meter shall include the cost of all training, labor, materials, equipment and clean up necessary to satisfactorily complete the work.