

SPECIFICATIONS FOR HOT Poured RUBBERIZED ASPHALT WATERPROOFING1055. 1. DESCRIPTION

The work will consist of the supply of labour, equipment, tools and materials for the cleaning of the existing bridge deck and approach slabs, the application of the surface conditioner and the hot poured rubberized asphalt waterproofing to the bridge deck and approach slabs, as well as for the cement dusting of the finished waterproofing membrane surface.

1055 3. MATERIALS TO BE SUPPLIED BY THE CONTRACTOR

The Contractor shall supply materials meeting the following requirements:

- (a) Rubberized Asphalt Waterproofing, to be supplied in cake form, polyethylene wrapped, and conforming to the following (A.S.T.M. Specifications shall be the latest edition):

<u>Properties</u>	<u>Method</u>	<u>Requirements</u>
Colour		Black
Flash Point	Open cup	300 ⁰ C
Water vapor permeability	A.S.T.M. C 355	25 ⁰ C, .0098 g 50 ⁰ C, .0154 g
	A.S.T.M. E 96	.01 Perms.
Water resistance	A.S.T.M. D 2939	No blistering or emulsification
Penetration	A.S.T.M. D 1191	0 ⁰ C not more than 30
		25 ⁰ C not more than 100
		50 ⁰ C not more than 220
Flow	A.S.T.M. D 1190	50 ⁰ C none
		60 ⁰ C 5 mm max.
Low temperature flexibility and adhesion	3 mm coating on aluminum bent no cracking, and to 90 ⁰ over 100 mm diameter mandrel in 1 s at -26 ⁰ C.	No delamination, no adhesion failure.
Heat aging	Weight loss after 28 d at 88 ⁰ C.	Less than 1%.

- (b) Surface conditioner, to be applied to the bridge deck, shall conform to the requirements of the manufacturer of the rubberized asphalt waterproofing.

- (c) Normal Portland cement to be used for dusting the finished waterproofing membrane surface.

1055. 7. CONSTRUCTION METHODS

7.1 Melting on Site

- (a) Cakes of rubberized asphalt waterproofing shall be melted in an approved double shell melter under continuous agitation until the material can be drawn free flowing and lump free from the melter.
- (b) The temperature of the rubberized asphalt waterproofing shall not exceed 218° C at any time during the entire melting procedure.

7.2 Application

- (a) Before commencing work, the Contractor shall examine the surface to be waterproofed and the Engineer shall be immediately notified of any conditions which could adversely affect the waterproofing membrane.
- (b) The concrete deck shall be thoroughly cleaned of loose foreign material, laitance, oil, grease, curing compounds and any other substances which could adversely affect the adhesion of the waterproofing membrane. The deck shall also be dry and frost-free immediately before the placing of the surface conditioner.
- (c) After the deck has been cleaned it shall be covered with the surface conditioner. The quantity used shall be 160 mL/m², or as recommended by the manufacturer. The surface conditioner shall be allowed to dry before the application of the waterproofing membrane.
- (d) The rubberized asphalt waterproofing shall be brought to a temperature of between 190° C and 218° C and then applied to the deck.
- (e) The application of the rubberized asphalt waterproofing shall be carried out under the supervision of experienced personnel.
- (f) The in-place thickness of hot poured rubberized asphalt waterproofing shall not be less than 3 mm nor more than 5 mm.
- (g) The finished waterproofing membrane surface shall be lightly dusted with normal Portland cement. The quantity used shall be one bag of cement per 45 m².

1055. 9. METHOD OF MEASUREMENT

Hot poured rubberized asphalt waterproofing will be measured on a square metre basis. The surface area to be paid for will be the total number of square metres of waterproofing computed from the plan dimensions.

Supplying and placing the surface conditioner and dusting the finished surface with normal Portland cement will be considered incidental to the contract Unit Price for "Hot Poured Rubberized Asphalt Waterproofing" and no separate measurements or payments will be made for these items.

1055. 11. BASIS OF PAYMENT

Rubberized asphalt waterproofing will be paid for at the contract Unit Price per square metre for "Hot Poured Rubberized Asphalt Waterproofing", measured as specified herein, which price will be payment in full for performing all operations herein described and all other items incidental to the work included in these Specifications.