

PERFORMANCE GRADED ASPHALT BINDER

1.0 GENERAL

1.1 Description

- .1 This section specifies the requirements for Performance Graded (PG) asphalt binder utilized in hot mix asphalt (HMA) production.
- .2 This specification describes the property criteria, and handling and storage requirements for Performance Graded Binder.
- .3 The work includes supply of Performance Graded Binder to the storage tanks at the HMA plant facility.

1.2 Related Work

- .1 Asphalt Concrete - Marshall – Section 05140
- .2 Asphalt Concrete - Superpave – Section 05142
- .3 Stone Matrix Asphalt – Section 05144

1.3 Samples

- .1 At least four (4) weeks prior to commencing work inform the Engineer of proposed supplier for PG binder.
- .2 At least four (4) weeks prior to commencing the work provide the Engineer with 2 litres of the PG binder product.
- .3 Provide access for the Engineer to sample material actually incorporated into the work as required.

1.4 Materials Certification

- .1 At least four (4) weeks prior to commencing the work provide supplier's test data and certification that the physical properties of the PG binder meet the requirements of this section.
- .2 At least two (2) weeks prior to contemplated changes in source of PG binder, provide written notification to the Engineer and provide new materials certification in accordance with the requirements of this section.

1.5 Delivery and Storage

- .1 Provide approved storage, heating and pumping facilities for the PG binder.
- .2 Storage and mixing temperatures to be in accordance with supplier recommendations.
- .3 Dedicated storage tank(s) shall be provided for PG binder product for the duration of paving on the project. No other material shall be introduced into the dedicated storage during this time.
- .4 Provide to the Engineer, upon request, freight and way-bills for PG binder shipments received.

2.0 PRODUCTS

2.1 Materials

- .1 Performance Grade Binder to be supplied in accordance with the binder grade identified in the Tender Form.
- .2 Products must meet the requirements of AASHTO MP320, "Standard Specification for Performance Graded Asphalt Binder".

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- .3 All Performance Graded Asphalt Binder shall incorporate liquid antistrip additive at a minimum 0.3% addition rate. Addition rates may be increased to a maximum of 0.5% if required to meet Tensile Strength Ratio (TSR) asphalt concrete mix requirements.
- .4 Only Antistrip Additives from the current Alberta Transportation Approved Products List (Group A) will be allowed.
- .5 The following guideline is provided with respect to binder selection:
 - .1 Residential and Collector Roadways (new construction and rehabilitation) – PG 58-31.
 - .2 Arterial Roadways (design traffic less than 5 Million Equivalent Single Axle Loadings (ESALs) – PG 58-31
 - .3 Arterial Roadways (design traffic greater than 5 Million ESALs – PG 64-34.
 - .4 Arterial Roadways (design traffic greater than 10 Million ESALs) or Stone Matrix Asphalt (SMA) – PG 70-31P.

The above serves as a guideline only and pavement designers should select Performance Grade Asphalt Binders based on the specific project applications.

3.0 MEASUREMENT AND PAYMENT

3.1 Measurement

- .1 Performance Graded Asphalt Binder supplied will be measured in tonnes of material incorporated into the work, including Demonstration Section(s).
- .2 Performance Graded Asphalt Binder shall be measured based on Quality Assurance test results from material incorporated into the work (including the Demonstration Section).

3.2 Payment

- .1 PG binder materials incorporated into the work shall be paid for using the unit price per tonne.
- .2 The unit price for PG Binder shall be full compensation for all material, haulage, storage, handling and incidentals necessary to complete the work in accordance with these specifications.