Project Specific Specification (Measurement)

Transport and Main Roads Specifications
PSS107 High Modulus Asphalt (EME2)

May 2015
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1 Introduction

This Specification applies to the construction of pavement layers comprising of 14 mm nominal size EME Class 2 (EME2) high modulus asphalt complying with PSTS107 *High Modulus Asphalt (EME2)*. This Specification shall be read in conjunction with Specification MRS01 *Introduction to Specifications* and other Specifications as appropriate.

2 Measurement of work

2.1 Standard Work Items

In accordance with the provisions of Clause 2 of MRS01 *Introduction to Specifications*, the standard work items covered by this Specification are listed in Table 2.1.

*Table 2.1 – Standard Work Items*

<table>
<thead>
<tr>
<th>Standard Item No.</th>
<th>Description</th>
<th>Unit of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>9511</td>
<td>High modulus asphalt, EME2 mix</td>
<td>tonne</td>
</tr>
</tbody>
</table>

2.2 Work Operations

Item 9511 High modulus asphalt, EME2 mix

Work Operations incorporated in the above item include:

a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*

b) being a registered asphalt manufacturer or engaging a subcontractor who is a registered asphalt manufacturer

c) having a registered mix design or obtaining a registered mix design under the asphalt supplier registration system

d) manufacture of the high modulus asphalt in accordance with the registered mix design(s)

e) delivery of the high modulus asphalt to the Works

f) being a registered asphalt paving organisation or engaging a registered asphalt paving organisation

g) laying, compacting and finishing the production asphalt

h) providing an allowance for production asphalt used in temporary ramps and asphalt lost from cut-offs from joints

i) provision of a laboratory and compliance testing facilities

j) sampling, testing and quality assurance requirements

k) delivery of the results for all tests and inspections to the Administrator within the nominated time, and

l) removal and disposal of any nonconforming material or product, or any material or product not utilised for a reduced level of service, and replacement with conforming material or product.
2.3 Calculation of quantities

2.3.1 High modulus asphalt, EME2 mix

The quantity of asphalt shall be determined from the tally of the weighbridge dockets of the delivered asphalt, less:

a) the quantity of asphalt which does not remain in the Works (such as asphalt in temporary ramps, cut off joints and spillages or that remaining on or in the Construction Plant), and

b) any amount of asphalt which exceeds the upper vertical and horizontal geometric tolerances but is accepted to remain in the Works by the Administrator.

3 Utilisation of a rejected lot for a reduced level of service

3.1 Production asphalt

3.1.1 Assessment of a production lot

The assessment of a rejected production lot for utilisation for a reduced level of service shall be based on the number of defects associated with nonconformance with the requirements for grading and binder content only, as determined from Clause 3.1.2.

A production lot which has a number of defects greater than six shall not be utilised for a reduced level of service, and shall be removed and replaced with material that conforms to the requirements of PSTS107 High Modulus Asphalt (EME2).

A production lot which has a number of defects up to and including two may be utilised for a reduced level of service, provided that the Contractor takes the necessary action within two working days to prevent recurrence of the nonconformance and states, on the nonconformance report, what action is to be taken.

Where approved by the Administrator, a production lot which has a number of defects greater than two but not greater than six may be utilised for a reduced level of service provided that:

a) the Contractor takes the necessary action to prevent recurrence of the nonconformance and states, on the nonconformance report, what action is to be taken, and

b) the Contractor accepts payment for the lot at the reduced value stated in Clause 3.1.3.

3.1.2 Calculation of defects for a production lot

Calculation of defects for a production lot shall be based on variations from the job limits on the mix design certificate as shown in Table 3.1.2.

The number of defects in a production lot shall be calculated as the total number of defects in the two samples representing that production lot.

In the case of a terminated or small production lot, where only one sample has been obtained, the number of defects in the production lot shall be calculated by doubling the number of defects in the sample.
Table 3.1.2 – Schedule for calculating defects in a production lot

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Variations</th>
<th>No. of Defects</th>
</tr>
</thead>
<tbody>
<tr>
<td>% passing 6.70 mm and larger sieves</td>
<td>Tolerances exceeded on 1 or more sieves</td>
<td>1</td>
</tr>
<tr>
<td>% passing – 4.75 mm sieve</td>
<td>Tolerances exceeded on 1 or 2 sieves</td>
<td>1</td>
</tr>
<tr>
<td>2.36 mm sieve</td>
<td>Tolerances exceeded on all 3 sieves</td>
<td>2</td>
</tr>
<tr>
<td>1.18 mm sieve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% passing – 0.600 mm sieve</td>
<td>Tolerances exceeded on 1 or 2 sieves</td>
<td>1</td>
</tr>
<tr>
<td>0.300 mm sieve</td>
<td>Tolerances exceeded on all 3 sieves</td>
<td>2</td>
</tr>
<tr>
<td>0.150 mm sieve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% passing – 0.075 mm sieve</td>
<td>Up to 0.5% outside the limits</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Each additional 0.5% (or part thereof) beyond 0.5% outside the limits</td>
<td>1</td>
</tr>
<tr>
<td>Binder Content (%)</td>
<td>Each 0.1% (or part thereof) outside the limits</td>
<td>1</td>
</tr>
</tbody>
</table>

3.1.3 Determination of the reduced value

The reduced value for defects in a production lot shall be determined from Table 3.1.3.

Table 3.1.3 – Reduction in value for defects in a production lot

<table>
<thead>
<tr>
<th>Number of Defects in a Lot</th>
<th>% Reduction in Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
</tr>
</tbody>
</table>