

SS 502 Amendment Feb 22, 2017

Replace existing Table SS 502C with the following:

SS502 Page 8 of 31 TABLE 502-C-1: ASPHALT MIX AGGREGATE GRADATION LIMITS

Sieve Size (mm)	Percentage Passing By Mass						
	Coarse Mix	Medium Mix		Fine Mix	Asphalt Base Course (ABC)	Asphalt Bound Open Graded Base Mix	Superpave ⁽¹⁾
	37.5 mm	19 mm	16 mm	12.5 mm	25 mm	25 mm	Nominal 12.5 mm
37.5	100						
25.0	80 – 100				100	100	
19.0	60 – 92	100			80-94	75-100	100
16.0			100				
12.5	50 – 85	84 – 95	90 – 100	100			90 – 100
9.50	40 – 80	73 – 90	73 – 90	90 – 100	50-84	30-60	
4.75	30 – 65	50 – 75	50 – 75	55 – 80	25-55	5-30	
2.36	20 – 50	35 – 57	35 – 57	32 – 64	20-45	0-10	28 – 58
1.18	15 – 35	26 – 45	26 – 45	24 – 51	15-35		
0.600	8 – 30	18 – 34	18 – 34	17 – 40			
0.300	6 – 22	10 – 26	10 – 26	13 – 29	5-20	0-8	
0.150	3 – 15	6 – 17	6 – 17	8 – 18			
0.075	1 – 7	3 – 7	3 – 7	4 – 10	0-5	0-4	2 – 10

Note (1): from Appendix B in SuperPave SP-2

Replace existing Table SS 502F with the following

SS502 Page 20 of 31 TABLE 502-F: PAYMENT ADJUSTMENTS FOR DEVIATION OF ASPHALT CONTENT (AC)

Differences of Actual AC Content From Designed AC Content Specified in JMF (AC in %)		
Deviation from Asphalt Mix Design JMF	Payment Adjustment \$ per tonne	
	Top Lift	Lower Lifts
<u>-0.56 or less</u>	<u>Reject</u>	<u>Reject</u>
<u>-0.55 to -0.51</u>	<u>Reject</u>	<u>-9.00</u>
<u>-0.50 to -0.46</u>	<u>-8.00</u>	<u>-8.00</u>
<u>-0.45 to -0.41</u>	<u>-7.00</u>	<u>-7.00</u>
<u>-0.40 to -0.36</u>	<u>-5.00</u>	<u>-5.00</u>
<u>-0.35 to -0.31</u>	<u>-3.00</u>	<u>-3.00</u>
<u>-0.30 to -0.21</u>	<u>-1.00</u>	<u>-1.00</u>
<u>-0.20 to -0.06</u>	<u>0.00</u>	<u>0.00</u>
<u>-0.05 to +0.15</u>	<u>+2.00</u>	<u>+2.00</u>
<u>+0.16 to +0.30</u>	<u>+1.50</u>	<u>+1.50</u>
<u>+0.31 to +0.35</u>	<u>0.00</u>	<u>0.00</u>
<u>+0.36 to +0.40</u>	<u>-2.00</u>	<u>-2.00</u>
<u>+0.41 to +0.45</u>	<u>-3.50</u>	<u>-3.50</u>
<u>+0.46 to +0.50</u>	<u>-5.00</u>	<u>-5.00</u>
<u>+0.51 to +0.55</u>	<u>Reject</u>	<u>-6.50</u>
<u>+0.56 or greater</u>	<u>Reject</u>	<u>Reject</u>

Add the following section to Materials: **SS 502.07 Asphalt Binder**

502.07.01 Asphalt Binder Testing – The Contractor shall provide supplier’s Asphalt Binder testing and grade information upon request.

502.07.02 Polymer Modified Asphalt Testing for Viscoelastic Properties

The Ministry may test a Polymer Modified Asphalt (PMA) to determine the viscoelastic properties of the Asphalt Binder (Asphalt Cement - AC).

The selected grades of PGAC may be tested at a temperature of 58°C to determine the average percent recovery at 3.2 kPa ($R_{3.2}$) according to the requirements of AASHTO T350 Multiple Stress Creep Recovery (MSCR) Test of Asphalt Binder using a Dynamic Shear Rheometer.

The minimum $R_{3.2@58^{\circ}\text{C}}$ value for selected asphalt binder grades shall be determined as outlined in Table 502 MSCR as follows:

(NEW) Table B-1 MSCR Elastic Recovery Requirements	
PGAC Grade	Minimum $R_{3.2@58^{\circ}\text{C}}$
58-34, 64-28	25%
58-37, 58-40, 64-34, 70-28	40%
64-37, 76-28	55%