



**SUPPLEMENTAL SPECIFICATIONS  
FOR  
ASPHALT BINDER**

**Effective Date  
October 21, 2014**

**THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SUPPLEMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

Replace Section 4137 with the following:

**4137.01 GENERAL REQUIREMENTS.**

- A. Meet the requirements for the type and grade specified in the contract documents.
- B. Determine performance grade according to AASHTO R 29.
- C. Do not add acids to modify asphalt binders.
- D. For asphalt binder grades with a temperature spread of 92° or greater<sup>1</sup>, ~~use binders that~~ meet the ~~PG+~~ requirements ~~established by~~ of the Combined State Binder Group as follows:

**Table 4137.01-1: PG+ Requirements**

<b>Temperature Spread<sup>1,2</sup></b>	<b>92</b>	<b>98</b>	<b>104</b>
<del>Elastic Recovery: AASHTO T 301 at 77° F. (RTFO Aged AASHTO T 240)</del>	<del>65% min.</del>	<del>65% min.</del>	<del>65% min.</del>
<del>DSR Phase Angle; degrees (original binder)</del>	<del>77.0 max.</del>	<del>75.0 max.</del>	<del>73.0 max.</del>
<p>1— Temperature spread is determined by subtracting low temperature from high temperature; for example PG 64-28: 64 - (-28) = 92</p> <p>2— When a grade change is required to compensate for binder in recycled materials, the virgin binder provided shall meet the above requirements for the original grade specified in the contract documents.</p>			

<b>AASHTO R29 Grade</b>	<b>AASHTO T350 Minimum Percent Recovery (R<sub>3.2</sub>)</b>		<b>DSR Phase Angle; degrees (original binder)</b>
	<b>Test Temperature<sup>2</sup></b>		
	<b>58°C</b>	<b>64°C</b>	
58-34P	30	25	77

64-28P	30	25	77
64-34P	55	45	75
70-22P	55	45	77
70-28P	55	45	75
70-34P	75	75	73
76-28P	75	75	73
76-34P	75	75	73
82-22P	75	75	73

1 Temperature spread is determined by subtracting low temperature from high temperature; for example PG 64-28: 64 - (-28) = 92.

2 See figure 4137.01-01 for test temperatures.

**Figure 4137.01-01: AASHTO T350 Test Temperature by County (°C)**

