

OPSS.PROV 1213

Comments received by TCP			
Comment ID	Organization	Comment	Response
No comments were received on the TCP portal, all comments were sent via e-mail, see table below.			

Comments received by email			
Number	Organization	Comment	Response
1	Crafc	<ul style="list-style-type: none"> <li>References internal Laboratory Testing Manual. Individual testing information is not provided within the specification.</li> </ul>	The laboratory testing manual is published annually in April, and the referenced test methods will be included in the next update. Draft test methods were provided for the TCP consultation, and final versions will be available, prior to the next publication of the laboratory testing manual.
2	Crafc	<ul style="list-style-type: none"> <li>Flexibility test               <ul style="list-style-type: none"> <li>Suggest allowing similar allowance as toughness adhesion where 1 out of 3 specimens can fail. As written, all 5 specimens must pass without any consideration to the approximation of 90°, lack of precision of “instantly,” the variability of human error when tested manually, and the lack of precision and bias.</li> <li>Suggest changing back to 2008 specification penalty for flexibility which would allow for the weighted point system: Low Temperature Flexibility at -25 °C - Pass - 5.0 for Failure</li> </ul> </li> </ul>	This test has been specified for many years. The testing ensures that the waterproofing membrane will have the required flexibility in the environmental conditions to which it will be exposed. It has been demonstrated, based on years of quality assurance testing, that this requirement can be consistently met. No change will be made to this requirement.

		<ul style="list-style-type: none"> <li>○ It is common practice, when designing test methods, to have a precision statement on the repeatability. For example, a similar flexibility test method is ASTM D5683. In this method, the precision allows for 6 mm differences in mandrel diameter to be considered within precision. This represents a 24% range based on starting with a 25 mm mandrel.</li> </ul>	
3	Crafco	<ul style="list-style-type: none"> <li>● Cone penetration at 50°C - max 140             <ul style="list-style-type: none"> <li>○ No data presented on why change is being proposed</li> <li>○ Different than OPSS 914 Table 2. OPSS lists 160 max. Which is it?</li> <li>○ Recommend adhering to historical specification of 160 max.</li> <li>○ What is the rationale for change from 160 to 140? This could/would require reformulation. Does this mean each manufacturer must again go thru the submittal process?</li> </ul> </li> </ul>	Thank you, this is an error, the value should be 160 in OPSS 1213, consistent with 914 and previous version of 1213. This specification requirement has been corrected.
4	Crafco	<u>LS-350 Method of Test for Low Temperature Flexibility of Hot-Applied</u>	Please see response to comment 2, above.

		<p><u>Rubberized (HRA) Asphalt Waterproofing Membrane</u></p> <ul style="list-style-type: none"> <li>• Flexibility - this is the only manually performed test with the most restrictive penalties. Crack bridging is a true performance indicator and this test has been deleted from the specification. Whereas the Flexibility test is bending specimens to a 90° angle – which is NOT a circumstance that would occur in the field.</li> <li>• “Immediately after the 5 ± 0.25 hours has elapsed, test each specimen by placing the center of each specimen on the conditioned mandrel, and bend the specimen 90° instantly.”             <ul style="list-style-type: none"> <li>○ CGSB 37.50-M89 specified bending the panel 90° in about 1 second.</li> <li>○ “Instantly” is not a defined amount of time and could change in force technician to technician.</li> <li>○ Most likely, “instantly” would be a faster bend than 1 second</li> <li>○ Testing is performed by hand over a mandrel and is manual</li> <li>○ Subject to repeatability variation</li> <li>○ No precision and bias statement for repeatability</li> </ul> </li> </ul>	
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5	Crafco	<p><u>LS-351 Method of Test for Cone Penetration and Relative Density of Hot-Applied Rubberized Asphalt Waterproofing Membrane</u></p> <ul style="list-style-type: none"> <li>• OPSS 1213 is dropping the maximum penetration from 160 to 140</li> <li>• No data or reasoning presented for the change in spec limit</li> <li>• This statement is at odds with Table 2 in OPSS 914 which states the max is 160.</li> <li>• Recommend adhering to historical specification of 160 max.</li> <li>• What is the rationale for change from 160 to 140? This could/would require reformulation. Does this mean each manufacturer must again go thru the submittal process?</li> </ul>	<p>Agree, this was an error, the value has been corrected to 160.</p>
	Crafco	<p><u>LS-353 Method of Test for Determining the Toughness and Ratio of Toughness to Peak Force and Adhesion of Hot-Applied Rubberized Asphalt Waterproofing Membrane</u></p> <ul style="list-style-type: none"> <li>• 3.3.4 Grip Cylinder: (See Figure 6Error! Reference source not found.) <ul style="list-style-type: none"> <li>○ Editorial note</li> </ul> </li> <li>• 5.1.6 “At least 20% of the sample should be adhered to the head in order to pass.”</li> </ul>	<ul style="list-style-type: none"> <li>• Thank you, the figure references have been corrected.</li> <li>• Based on this comment, the requirement has been changed to: “Some of the threads of each head should be covered in order to pass.”</li> </ul>

		<ul style="list-style-type: none"> <li>○ CGSB 37.50-M89 is “some of the threads will clearly be covered”</li> <li>○ More clarification would be appropriate</li> <li>○ Keeps language from CGSB around area under the curve</li> <li>○ No data presented on why change is being proposed</li> </ul>	
6	Crafco	<p><u>LS-400 Method of Test for Oven Aged Low Temperature Flexibility of Hot-Applied Rubberized (HRA) Asphalt Waterproofing Membrane</u></p> <ul style="list-style-type: none"> <li>● See notes from LS-350</li> </ul>	Please see response to comment 2, above.