



# Top Nonconformities of AASHTO T 209 and ASTM D2041

On season 2 episode 30 we discuss common nonconformities for the Standard Method of Test for Theoretical Maximum Specific Gravity and Density of Asphalt Mixtures and how to resolve them. [LISTEN HERE](#) or go to [podcast.aashtoresource.org](http://podcast.aashtoresource.org).

EQUIPMENT SET UP	Nonconformity	Resolution
	<p>The equipment presented did not include a residual pressure manometer or vacuum gauge connected directly to the vacuum source or in the vacuum line close to the source.</p>	<p>The laboratory must provide a complete corrective action report indicating how they resolved the issue. The laboratory must also submit photos of the new set-up with the new equipment along with receipts and calibration, standardization, or check records (if applicable).</p>
<p>The equipment presented did not include a suitable trap of one or more 1000-mL filter flasks, or equivalent, installed between the vacuum vessel and the vacuum source to reduce the water vapor entering the vacuum pump.</p>		

TEMPERATURE OF WATER	Nonconformity	Resolution
	<p>The temperature of the water in the bowl was not measured and recorded following the mass determination.</p>	<p>These are likely to be procedural nonconformities which must be resolved by retraining the technicians on the step(s) that were incorrectly performed. If the issue is found to be an equipment or facilities problem, the laboratory must provide sufficient evidence to prove that the issue has been resolved.</p>
<p>After the flask and its contents were immersed in water for <math>10 \pm 1</math> minutes (Weighing-in-air method), the temperature of the water in the flask was not measured and recorded.</p>		

MASS DETERMINATION	Nonconformity	Resolution
	<p>The procedure for stabilizing the temperature and determining the mass of the bowl and its contents was not repeated until two mass determinations were within 1.0 g. The mass was determined once.</p>	<p>These are procedural nonconformities which must be resolved by retraining the technicians on the step(s) that were incorrectly performed. The laboratory must also submit evidence that indicates the retraining took place. Statements that indicate training will take place in the future are not acceptable.</p>
<p>The bowl was not standardized for mass determination in water by taking the average of three masses that were obtained by immersing the empty bowl in water at <math>25 \pm 1^\circ\text{C}</math> for <math>10 \pm 1</math> minute. The immersed mass of the empty bowl was determined once.</p>		