IA Checklist
OHD L-45
METHOD OF TEST FOR
DETERMINING THE SPECIFIC GRAVITY AND UNIT WEIGHT
OF COMPACTED BITUMINOUS MIXTURES USING THE CORELOK™ APPARATUS

		P	F	NA
1	Bring the specimen to room temperature at 77º ± 9º F (25º ± 5º C).			
2	Record the initial dry mass of the specimen to the nearest 0.1% of sample mass or better as (A).			
3	Seal the specimen in the CoreLok™ in a calibrated bag. The vacuum pump should run for 45 seconds			
4	Set the sealing bar timer to a setting that ensure complete sealing. A setting of 4 is generally adequate for most bags. The bag should not be stretched or burned. This would indicate a setting too high.			
5	Place specimen into the appropriately sized bag. Specimens of 4 inches (100mm) and 6 inches (150mm) diameter and less than 2" (50mm) in height typically only require a small bag. The large bag may be required should the specimen exceed these dimensions.			
6	Grip the specimen with one hand while holding the bag in the other and slip the specimen into the bag. There should be near one inch of slack between the specimen and the back end of the bag. Gently position bag and specimen onto the sliding plate. The smoother side of the specimen should rest on the sliding plate to reduce the chance of punctures in the bag. Filler plates may need to removed or added. Use as many filler plates as possible but do not force the lid down or allow the lid to touch the specimen.			
7	Position the sealed specimen in the vacuum chamber to overlap the open end on the sealing bar by at least one inch. Check the bag to ensure no wrinkles along the sealing bar.			

8	Close the lid. Hold down firmly for two to three seconds. The vacuum pump will start, the pump timer red indicator will light, and the cycle will begin. Shortly after the vacuum begins, stop holding the lid down as it will stay closed on its own at that point. As the automatic cycle begins the vacuum gauge needle, or LCD screen, will move up to 28 to 30 inches of mercury mark. A minimum of 10 TORR is required. The vacuum should be verified with a calibrated vacuum gauge annually. The bag will appear to puff up and this is normal. When the seal bar indicator light comes on the seal bar raises up, pinches the bag shut and heat seals it. Once sealed, the de-vac valve opens and air reenters the chamber. Since the inside of the bag is still evacuated, the atmospheric pressure outside the bag will collapse it tightly around the specimen.			
9	Carefully remove the sample from the chamber. Pull gently on the plastic to ensure that the bag is tightly conformed to the sample. A loose bag indicates an air leak and the process must be redone.			
10	Calculate the mass of the sealed specimen in air by summing the masses recorded as A (Weight of Dry Specimen in Air) and Bag Weight. Designate this mass as B. Record to nearest 0.1% of sample mass or better.			
11	Within one minutes after sealing, immerse the sealed specimen in the water bath at 77° ± 1.8 F (25° ± 1° C) until the weight stabilizes. The plastic is easily punctured so, care must be taken to ensure no punctures occur during this process. A vinyl coated specimen holder for the water bath is generally provided with the CoreLok™ apparatus. Do not allow the bag to touch the sides of the water bath. The bag and specimen must be completely immersed in water. Record the immersed weight (E) to the nearest 0.1% of sample mass or better.			
12	Remove the sealed specimen from the water bath and remove the plastic bag. Care should be taken to not damage the specimen during bag removal. Weigh the specimen (C) and compare to the initial weight. The check passes if less than 0.08 percent is lost or no more than 0.04 percent is gained. A loss indicates sample material loss, and a gain indicates a possible bag leakage problem. Remove the bag, and restart the process if this check fails.			