

# **SUPERPAVE QC/QA CERTIFICATOIN**

## **PROFICIENCY EXAMINATION**

**2021-2022**

**DATE:** \_\_\_\_\_

**APPLICANT'S NAME:** \_\_\_\_\_

**EMPLOYER:** \_\_\_\_\_



# AASHTO T209

## Theoretical Maximum specific Gravity (rice Test): (Weigh In air" Method (revised 09/20/2021)

**Pre-Procedure Checklist:**

Trial #

1	2

1. Pycnometer calibration required daily.
2. Sample moisture content must be < 0.1% : Verify by a)oven drying until mass repeats within 0.1% OR b) Use results of AASHTO T329.
3. Perform "dry-back" procedure if ANY coarse aggregate fraction has absorption >2.0% (Use surface-dry weight "A2" in place of "A" in the denominator of the non-dry back Gmm equation.

**Routine Rice Test Procedure:**

4. Separate particles while cooling sample: 1.) Don't break aggregate; 2.)Reduce sand-binder clumps to  $\leq \frac{1}{4}$ "; 3.) Cool until mix is at room temperature.
5. Determine and record empty weight of the pycnometer (Without lid).
6. Place and level sample in pycnomter. Record weight of sample + pycnometer.
7. Calculate oven-dry weight of sample [A].
8. Cover sample with approximately 1" of bath water.
9. Subject to specified vacuum while agitating for  $15 \pm 2$  minutes.
10. Immediately after the  $15 \pm 2$  minute time period in which the final weight must be obtained (I.e. fineish the test). Disassemble apparatus.
11. Being careful not to expose the mix to the air, slowly submerge pycnometer in water bath at the specified temperature (is it?) and carefully place capillary lid on the pycnometer.
12. Just prior to end of  $10 \pm 1$  minute time period, remove pycnometer, dry off the exterior, then determine and record total weight [E].
13. After recording E, completely remove contents, re-submerge empty pycnometer in water in water bath, place capillary lid on pycnometer, wait  $10 \pm 1$  minutes for temperatue to stabilize, remove pycnometer, dry off the exterior, then determine, and record total weight [D].
14. Calculate non-dry-back Gmm =  $A/(A + D - E)$ ; Nearest 0.001.
15. Calculate dry-back Gmm =  $A/(A2 + D - E)$ : Nearest 0.001.

PASS  
Fail


Tester: \_\_\_\_\_

Proctor: \_\_\_\_\_

# AASHTO T308

## Asphalt Content by Ignition; Method A

(revised 09/20/2021)

**Pre-Production Oven Parameters Checklist:**

Trial #	1	2
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**NOTE: Input required parameters for routine production of a particular mix.**

- |  |  |  |  |
|--|--|--|--|
| 1. Enter <b>TEMP</b> setpoint [chamber temperature]                  |  |  |  |
| 2. Enter <b>CALIB. FACTOR</b> [binder (aggregate) correction factor] |  |  |  |

**Routine Production Ignition Oven Procedure:**

- |  |  |  |  |
|--|--|--|--|
| 3. Obtain weight of empty basket assembly.   |  |  |  |
| 4. Place ~ ½ of hotmix sample in each basket; move mix ~ ¾" away from sides: re-assemble basket. and cool to room temperature.   |  |  |  |
| 5. Obtain total weight of the sample plus basket then calculate initial weight of hotmix sample.   |  |  |  |
| 6. Enter initial sample <b>WEIGHT</b> .  |  |  |  |
| 7. Zero oven scale (push the number "0").  |  |  |  |
| 9. After putting on safety gloves, face shield, etc., carefully load sample into the oven, making sure the basket is not touching the walls of the oven; close the door. |  |  |  |
| 10. Check total weight: Oven vs. exterior scale.<br>No good if > 5 grams difference: Is it?  |  |  |  |
| 11. Initiate burnoff program by pressing <b>START/StOP</b> .   |  |  |  |
| 12. After burnoff stops, remove and examine paper readout.   |  |  |  |
| 13. Again with safety gear on, open oven door, remove basket & place on cooling rack. Cool to room temperature.  |  |  |  |
| 14. Determine and record the basket + specimen weight, then calculate and record final specimen weight (For manual calculations and/or verification of % AC).            |  |  |  |
| 15. Obtain Calibrated %AC through calculations.<br>(NOTE: In the field, this value will automatically be on the printout tape.)  |  |  |  |
| 16. Correct the Calibrated %AC for moisture.   |  |  |  |

PASS		
Fail		

Tester: \_\_\_\_\_

Proctor: \_\_\_\_\_