



**WORKSHEET FOR DETERMINING VOLUMETRIC  
PROPERTIES OF SUPERPAVE ASPHALT CONCRETE at  $N_{des}$   
AASHTO T 209, AASHTO T 166, AASHTO T 269 AND AASHTO R 35**

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Project	Source	
Sample of	Lot No.	Sample No.
Where sampled	Time Sampled:	
Sampled by	Date	Tested by
		Date

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**GYRATORY COMPACTOR SAMPLE INFORMATION**

English	Metric
Sample height,	Number of gyrations @ $N_{des}$
Initial sample weight, g	Binder Content, % by mix (Pb)

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**MAXIMUM SPECIFIC GRAVITY (AASHTO T 209)**

A. MASS OF CALIBRATED PYCNOMETER AT	C. Mass of container filled with sample and water at , g
B. Mass of sample in air, g	D. Maximum Specific Gravity, Gmm, $[B/(A+B-C)]$

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**BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT MIX (AASHTO T 166)**

E. Mass of sample in air, g	H. Volume, cc $[F-G]$
F. Mass of SSD sample, g	J. Bulk Specific Gravity, Gmb, $[E/H]$
G. Mass of sample in water , g	K. Unit mass of sample,

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**PERCENT AIR VOIDS OF COMPACTED ASPHALT MIX (AASHTO T 269)**

L. Percent air voids,  $V_a$ , %  $[100*(1-(J/D))]$

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**VOLUMETRIC ANALYSIS FOR COMPACTED ASPHALT MIX (AASHTO R 35)**

M. Bulk specific gravity of combined aggregate, (from mix design), Gsb	O. Voids in the mineral aggregate, VMA, % $[100-((J*N)/M)]$
N. Percent aggregate in sample, Ps $(100-Pb)^{(1)}$	P. Voids filled with asphalt, VFA, % $[100*((O-L)/O)]$

<sup>(1)</sup> Pb as determined by AASHTO T 308.

**REMARKS:**