

West Virginia Division Of Highways

Hot-Mix Asphalt Design Property Worksheet

Lab Number:	Material Type:
Source:	Project:
T400 Design Number:	Field Sample Number:
Compaction Temperature: °F/°C	Number of Blows:
Percent Asphalt:	Date Sampled:
Percent Aggregate (Y):	Date Completed:
Bulk Aggregate Sp. Gr. (Z):	Technician:

Maximum Specific Gravity - Bowl Method (AASHTO T-209)		
A	Sample Weight	
B	Bowl + Sample in Water Weight	
C	Bowl in Water (Calibration Weight)	
D	Surface Dry Sample Weight (For Dry-Back Procedure Only)	
E	Max. Sp. Gr. = $A / [A - (B - C)]$ or Dry-Back Max. Sp. Gr. = $A / [D - (B - C)]$	

Bulk Specific Gravity - (AASHTO T-166)					
Compacted Specimens		1	2	3	Average
F	Weight in Air				
G	Saturated Surface Dry Weight				
H	Weight in Water				
J	Bulk Specific Gravity = $F / (G - H)$				
Unit Weight (kg/m^3) = $J \times 1000$					

Marshall Stability And Flow (AASHTO T-245)					
Specimen Thickness (mm)					
K	Correlation Ratio				
L	Measured Stability (N)				
Adjusted Stability (N) = $(K \times L)$					
Flow (0.25 mm)					

Void Analysis (AASHTO T-269 And The Asphalt Institute MS-2 Manual)	
Percent Air Voids = $[(E - J) / E] \times 100$	
Percent Voids in Mineral Aggregate (VMA) = $100 - [(J \times Y) / Z]$	