



AASHTO Materials Reference Laboratory

Individual Enrollment Rating Sheet  
 Hot Mix Asphalt Gyratory 29/30  
 Final Report Date: 8/25/2010

PSP Enrollment #3879  
 University of Arkansas, Fayetteville, AR US

Submitted by sgwill@uark.edu on 7/12/2010 at 2:48 PM  
[View Your Data Submission Details](#)

The Z-Score indicates the number of standard deviations from the average value. The Z-Score is determined by the following calculation:

$$\text{Z-Score} = (\text{Laboratory Test Result} - \text{Average Value}) / (\text{Standard Deviation})$$

The laboratory Rating calculation is based on the absolute value of the Z-Score (or number of standard deviations from the average). The following describes the laboratory Rating system:

- | If Z-Score <= 1 Then Rating = 5
- | If Z-Score > 1 And <= 1.5 Then Rating = 4
- | If Z-Score > 1.5 And <= 2 Then Rating = 3
- | If Z-Score > 2 And <= 2.5 Then Rating = 2
- | If Z-Score > 2.5 And <= 3 Then Rating = 1
- | If Z-Score > 3 Then Rating = 0

A negative sign on a Z-Score or Rating indicates that the laboratory's result was below the average, while a positive Z-Score or Rating indicates that the laboratory's result was above the average.

Maximum Specific Gravity (Gyratory)

Maximum Specific Gravity - T209/D2041

[View Youden Diagram](#) | [View Performance Chart](#)

		Sample 29					Sample 30					Repeatability(within-lab)		
	Total Labs	Lab Data	Avg	1S	Z-Score	Rating	Lab Data	Avg	1S	Z-Score	Rating	1S	Z-Score	Lab Rating
1	569	2.552	2.5466	0.0058	0.93	5	2.548	2.5433	0.0057	0.83	5	0.0032	-0.17	-5

Bulk Specific Gravity Saturated Surface-Dry Method (Gyratory)

Bulk Specific Gravity - T166/D2726

[View Youden Diagram](#) | [View Performance Chart](#)

		Sample 29					Sample 30					Repeatability(within-lab)		
	Total Labs	Lab Data	Avg	1S	Z-Score	Rating	Lab Data	Avg	1S	Z-Score	Rating	1S	Z-Score	Lab Rating
2	563	2.425	2.4254	0.0251	-0.02	-5	2.426	2.4269	0.0254	-0.04	-5	0.0080	-0.05	-5

Bulk Specific Gravity Vacuum Sealing Method

Bulk Specific Gravity - T331/D6752

[View Youden Diagram](#) | [View Performance Chart](#)

		Sample 29					Sample 30					Repeatability(within-lab)		
	Total Labs	Lab Data	Avg	1S	Z-Score	Rating	Lab Data	Avg	1S	Z-Score	Rating	1S	Z-Score	Lab Rating
3	65	2.402	2.4084	0.0281	-0.23	-5	2.404	2.4092	0.0270	-0.19	-5	0.0095	0.09	5

Hot Mix Asphalt Superpave Gyratory Compactor

Height During Compaction after 8 gyrations (mm) - T312/D6925

[View Youden Diagram](#) | [View Performance Chart](#)

		Sample 29					Sample 30					Repeatability(within-lab)		
	Total Labs	Lab Data	Avg	1S	Z-Score	Rating	Lab Data	Avg	1S	Z-Score	Rating	1S	Z-Score	Lab Rating
4	564	132.9	132.30	1.63	0.37	5	133.1	132.29	1.67	0.48	5	0.53	0.27	5

Hot Mix Asphalt Superpave Gyratory Compactor

Height During Compaction after 100 gyrations (mm) - T312/D6925

[View Youden Diagram](#) | [View Performance Chart](#)

		Sample 29					Sample 30					Repeatability(within-lab)		
	Total Labs	Lab Data	Avg	1S	Z-Score	Rating	Lab Data	Avg	1S	Z-Score	Rating	1S	Z-Score	Lab Rating
5	563	116.0	115.50	1.29	0.39	5	116.1	115.44	1.36	0.49	5	0.45	0.25	5

Hot Mix Asphalt Superpave Gyratory Compactor

Percent of Maximum Specific Gravity after 8 gyrations (percent) - T312/D6925

[View Youden Diagram](#) | [View Performance Chart](#)

		Sample 29					Sample 30					Repeatability(within-lab)		
	Total Labs	Lab Data	Avg	1S	Z-Score	Rating	Lab Data	Avg	1S	Z-Score	Rating	1S	Z-Score	Lab Rating
6	561	82.9	83.12	1.05	-0.21	-5	83.1	83.22	1.04	-0.11	-5	0.33	0.22	5

Hot Mix Asphalt Superpave Gyratory Compactor  
 Percent of Maximum Specific Gravity after 100 gyrations (percent) - T312/D6925

[View Youden Diagram](#) | [View Performance Chart](#)

		Sample 29					Sample 30					Repeatability(within-lab)		
	Total Labs	Lab Data	Avg	1S	Z-Score	Rating	Lab Data	Avg	1S	Z-Score	Rating	1S	Z-Score	Lab Rating
7	561	95.0	95.23	1.07	-0.21	-5	95.2	95.41	1.08	-0.20	-5	0.37	0.02	5

\*\* Ratings Suppressed

-- No Data Submitted or Data Out of Accepted Range