



**Combined State Binder  
Group**

Method of Acceptance for  
Asphalt Binders

Round Robin 2004-3  
Summary B

**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-3**

**SUMMARY B**

**PG 64-22**

<b>Supplier Number</b>	<b>Rotational Viscosity (Pa.s) @135°C</b>	<b>DSR Original (kPa) @64°C</b>	<b>DSR RTFO (kPa) @64°C</b>	<b>DSR PAV (kPa) @25°C</b>	<b>Mass Loss (%) @163°C</b>	<b>BBR S-value (MPa) @-12°C</b>	<b>BBR m-value @-12°C</b>
IADOT	0.405	1.35	3.12	4,092	-0.315	216	0.321
MIDOT	0.378	1.20	2.96	3,886	-0.345	199	0.339
MNDOT	0.375	1.30	3.43	4,665	-0.347	210	0.309
NCSPC	0.369	1.19	2.92	4,254	-0.351	195	0.311
NDDOT	0.413	1.30	2.97	4,153	-0.330	208	0.332
NEDOR		1.24	3.33	4,311	-0.297	205	0.323
OHDOT D2	0.380	1.25	3.37	4,446	-0.310	214	0.322
SDDOT	0.375	1.53	3.22	2,161	-0.373	193	0.326
UW	3.375	1.21	3.20		-0.053		
WISDOT	0.405	1.19	2.80	2,724	-0.289	205	0.336
A	0.379	1.24	3.26	4,633	-0.386	221	0.328
B	0.395	1.21	3.23	3,710	-0.250	204	0.332
C	0.410	1.18	3.17	4,086	-0.338	200	0.325
E	0.413	1.30	3.38	4,316	-0.353	210	0.317
F	0.395	1.21	3.16	4,305	-0.323	213	0.322
G	0.408	1.20	2.88	3,763	-0.312	211	0.327
I	0.400	1.32	3.34	4,261	-0.281	216	0.326
J	0.412	1.18	3.08	4,360	-0.296	196	0.319
L	0.353	1.23	3.14	3,447	-0.297	195	0.331
M	0.364	1.23	3.00	4,162	-0.317	205	0.319
N	0.387	1.30	3.17	4,130	-0.329	205	0.330
O	0.439	1.36	3.40	3,862	-0.374	195	0.336
P	0.395	1.35	3.46	3,710	0.035	202	0.318
Q	0.399	1.34	2.91	4,129	-0.289	204	0.328
S	0.382	1.39	3.36	4,740	-0.381	205	0.317
07	0.425	1.28	2.86	4,837	-0.337	206	0.320
12	0.414	1.26	3.50	4,690	-0.410	208	0.320
16	0.392	1.23	2.94	4,398	-0.188	195	0.330
18	0.375	1.18	3.15	3,913	-0.344	203	0.334
22	0.384	1.26	2.90	4,097	-0.449	223	0.313
24	0.404	1.33	3.20	4,986	-0.291	223	0.323
29	0.389	1.29	3.05	4,022	-0.366	205	0.310
35	0.427	1.70	4.18		-0.331		
42	0.416	1.28	3.25	3,995	-0.386	181	0.342
46	0.365	1.24	3.42	3,687	-0.306	204	0.336
49	0.410	1.37	3.37	3,837	-0.278	172	0.344
61	0.392	1.35	3.44	4,172	-0.372	214	0.302
67	0.263	1.24	3.86	4,461	-0.288	212	0.326
69	0.423	1.22	2.95	4,877	-0.320	209	0.323
70	0.390	1.24	3.06	3,871	-0.345	192	0.321
77	0.405	1.20	3.24	4,150	-0.351	219	0.326
79	0.400	1.28	3.47	4,276	-0.164	209	0.326
87	0.388	1.22	3.17	4,321	-0.303	204	0.320
<b>Average</b>	0.4635	1.2780	3.2147	4,119.32	-0.3100	204.98	0.3245
<b>Std. Dev.</b>	0.4610	0.0968	0.2653	522.22	0.0850	10.35	0.0090
<b>Coef. of Var.</b>	99.472	7.572	8.252	12.677	27.429	5.048	2.768

COMBINED STATE BINDER GROUP ROUND ROBIN 2004-3  
SUMMARY B

A	Brookfield	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
51	0.378	1.24	3.09	4.720	-0.370	222	0.327
97	0.360	1.25	3.48	4.854	-0.399	219	0.326
98	0.378	1.24	3.21	4.326	-0.390	222	0.330
Average	0.379	1.24	3.26	4.633	-0.386	221	0.328

B							
01	0.395	1.22	3.26	3.766	-0.255	208	0.333
17	0.395	1.21	3.23	3.666	-0.225	202	0.331
45	0.395	1.19	3.20	3.697	-0.269	202	0.333
Average	0.395	1.21	3.23	3.710	-0.250	204	0.332

C							
21	0.410	1.16	3.14	4.198	-0.328	204	0.320
28	0.410	1.17	3.32	4.077	-0.330	198	0.324
90	0.409	1.15	3.09	4.030	-0.336	202	0.328
99	0.412	1.23	3.12	4.037	-0.359	197	0.326
Average	0.410	1.18	3.17	4.086	-0.338	200	0.325

E							
15	0.413	1.28	3.33	4334	-0.357	212	0.319
89	0.413	1.31	3.43	4298	-0.348	208	0.315
Average	0.413	1.30	3.38	4.316	-0.353	210	0.317

F							
02	0.387	1.21	3.02	3.882	-0.304	212	0.323
11	0.401	1.22	3.10	4.699	-0.322	216	0.324
34	0.404	1.23	3.30	4.467	-0.318	217	0.319
48	0.384	1.28	3.36	4.303	-0.325	208	0.322
56	0.408	1.14	3.15	3.959	-0.319	205	0.324
62	0.387	1.19	3.03	4.517	-0.352	219	0.321
Average	0.395	1.21	3.16	4.305	-0.323	213	0.322

G							
26	0.414	1.24	2.77	3.654	-0.310	210	0.328
36	0.402	1.16	2.98	3.872	-0.314	211	0.325
Average	0.408	1.20	2.88	3.763	-0.312	211	0.327

I							
03	0.400	1.33	3.47	4.119	-0.288	214	0.329
09	0.400	1.33	3.26	4.193	-0.280	208	0.330
13	0.398	1.35	3.22	4.175	-0.285	218	0.326
33	0.400	1.27	3.39	4.558	-0.271	225	0.317
Average	0.400	1.32	3.34	4.261	-0.281	216	0.326

J							
05	0.408	1.21	3.23	4.547	-0.254	198	0.320
08	0.414	1.18	2.99	4.158	-0.336	196	0.315
10	0.410	1.21	3.10	4.545	-0.251	193	0.318
31	0.415	1.23	3.22	4.537	-0.347	194	0.318
38	0.412	1.16	3.19	4.165	-0.252	197	0.318
41	0.407	1.19	2.94	4.809	-0.334	202	0.318
44	0.414	1.19	3.01	3.840	-0.243	192	0.319
52	0.412	1.13	2.94	4.527	-0.321	202	0.318
65	0.414	1.16	3.04	4.348	-0.256	194	0.324
74	0.413	1.13	3.13	4.121	-0.362	196	0.322
Average	0.412	1.18	3.08	4.360	-0.296	196	0.319

L							
25	0.354	1.24	3.18	3.264	-0.308	200	0.331
59	0.351	1.22	3.09	3.629	-0.286	190	0.330
Average	0.353	1.23	3.14	3.447	-0.297	195	0.331

M							
04	0.355	1.25	2.92		-0.298	203	0.318
37	0.400	1.23	2.98	4.208	-0.290	199	0.312
47	0.335	1.25	3.20	4.116	-0.378	209	0.320
57	0.365	1.19	2.89		-0.300	207	0.324
Average	0.364	1.23	3.00	4.162	-0.317	205	0.319

N							
43	0.384	1.33	3.24	4.027	-0.315	206	0.331
95	0.390	1.26	3.09	4.232	-0.343	203	0.329
Average	0.387	1.30	3.17	4.130	-0.329	205	0.330

O							
76	0.430	1.34	3.32	4023	-0.378	190	0.336
85	0.448	1.38	3.47	3700	-0.370	200	0.335
Average	0.439	1.36	3.40	3.862	-0.374	195	0.336

P							
71	0.400	1.32	3.48	3.733	0.050	206	0.323
73	0.390	1.38	3.44	3.686	0.020	197	0.313
Average	0.395	1.35	3.46	3.710	0.035	202	0.318

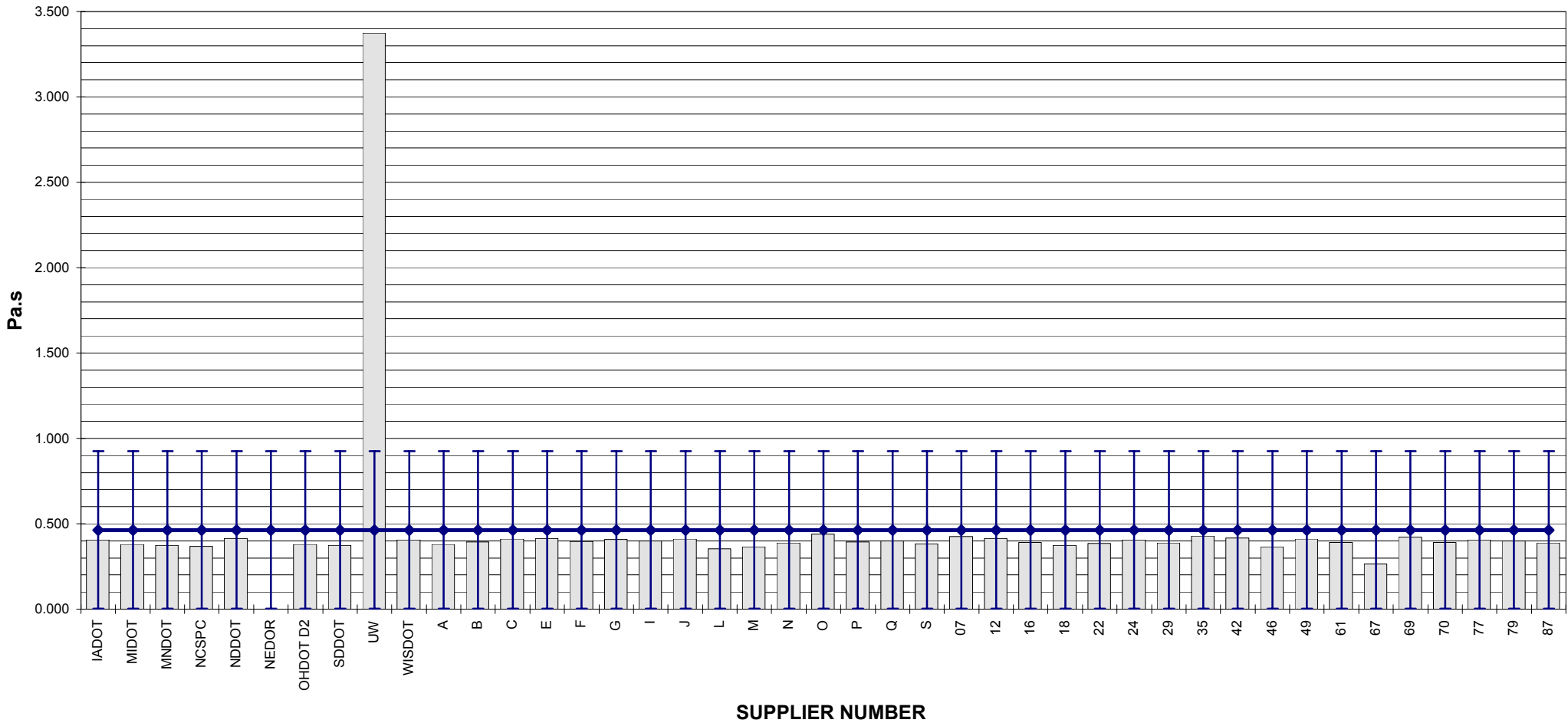
Q							
54	0.398	1.33	3.00	4181	-0.292	208	0.328
88	0.400	1.35	2.82	4076	-0.286	200	0.328
Average	0.399	1.34	2.91	4129	-0.289	204	0.328

S							
53	0.381	1.41	3.29	4824	-0.370	209	0.315
64	0.383	1.37	3.42	4656	-0.392	200	0.318
Average	0.382	1.39	3.36	4740	-0.381	205	0.317

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SUMMARY B

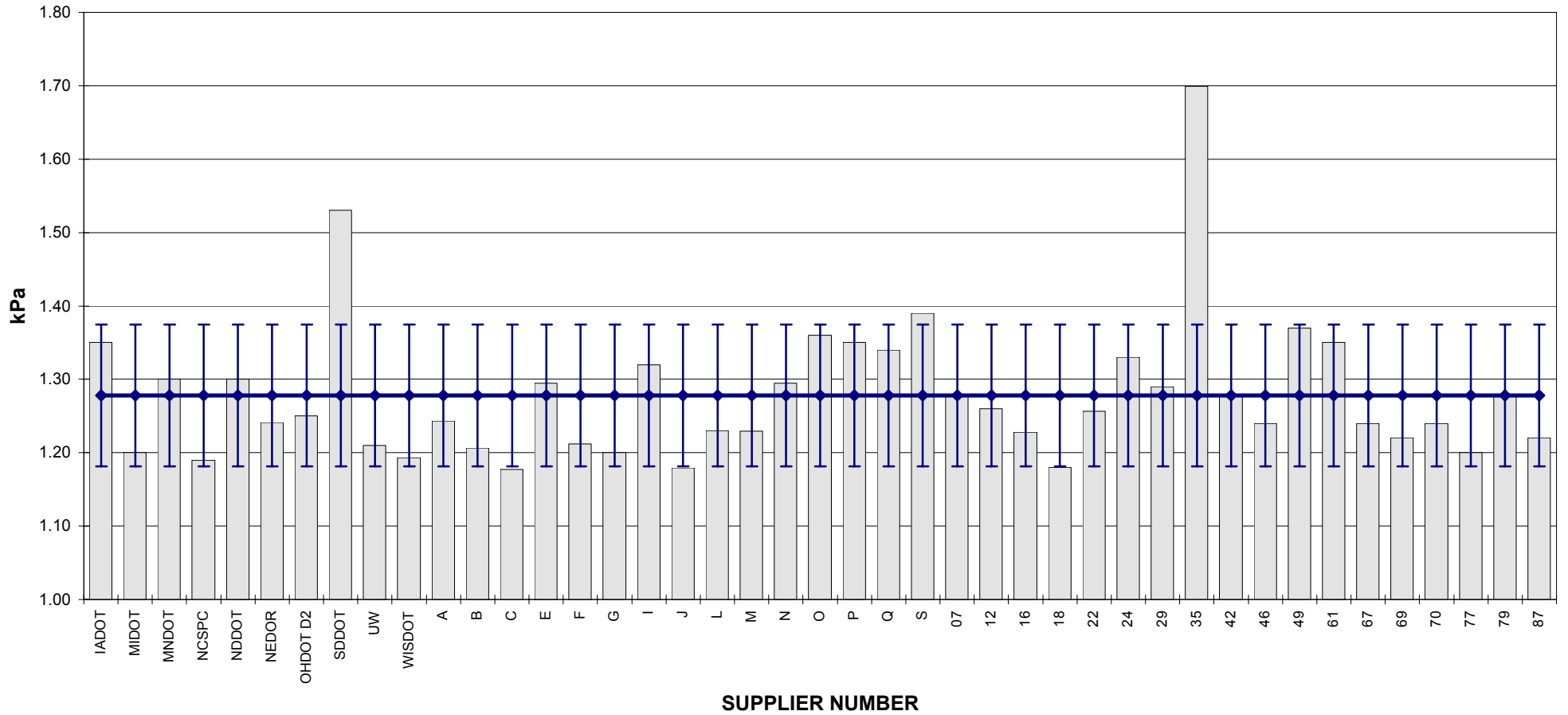
PG 64-22

ROTATIONAL VISCOSITY



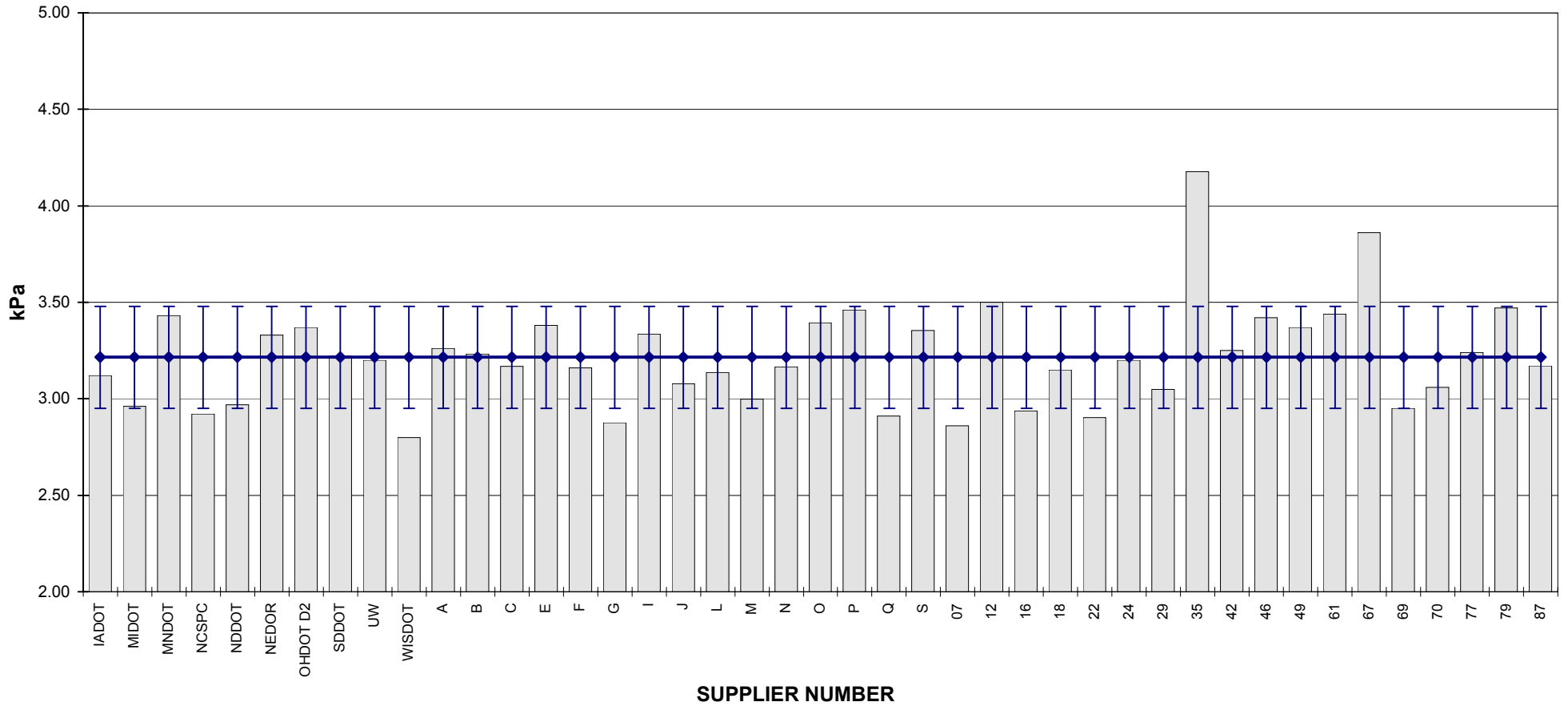
**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-3  
SUMMARY B  
PG 64-22**

**DSR - ORIGINAL**

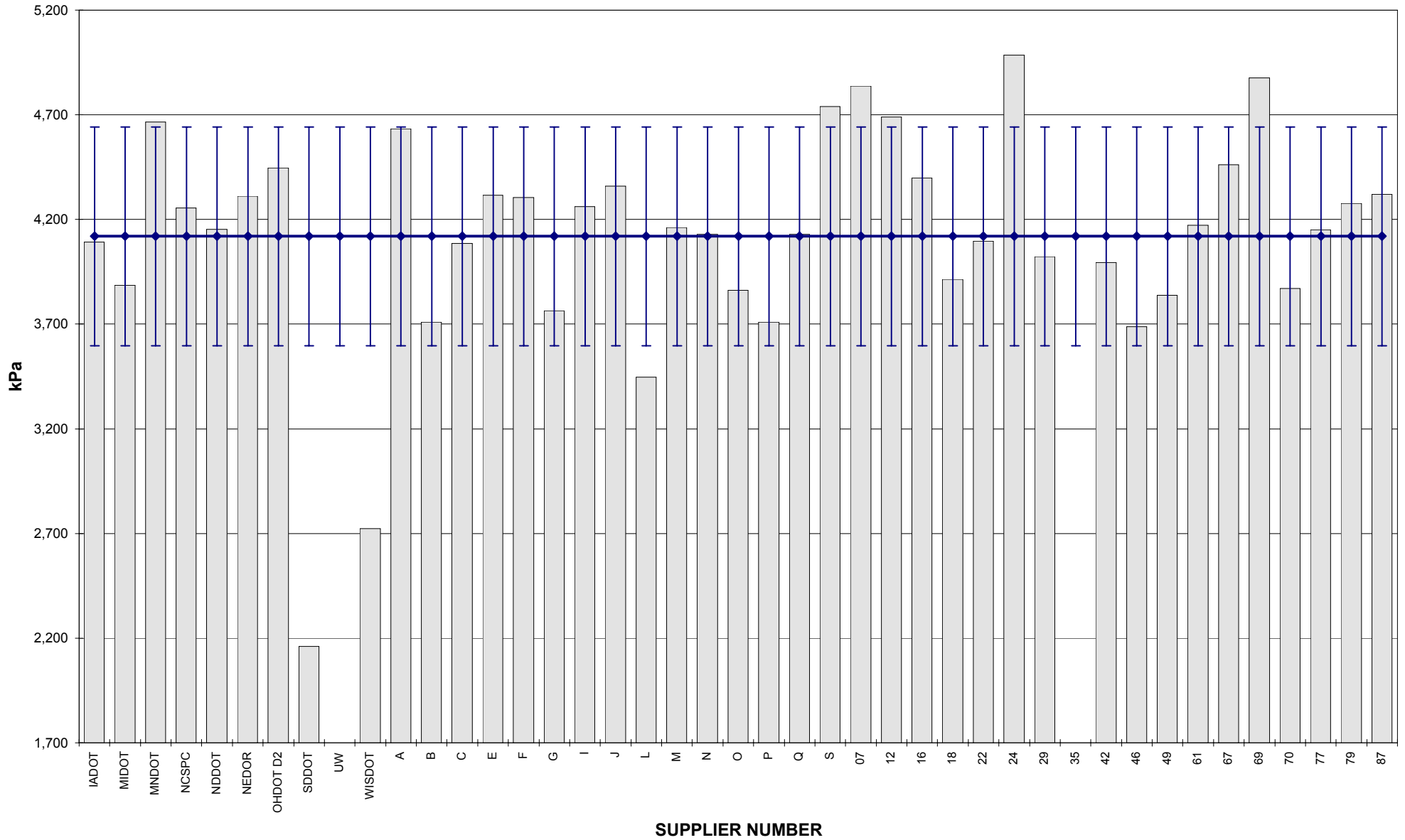


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SUMMARY B  
PG 64-22**

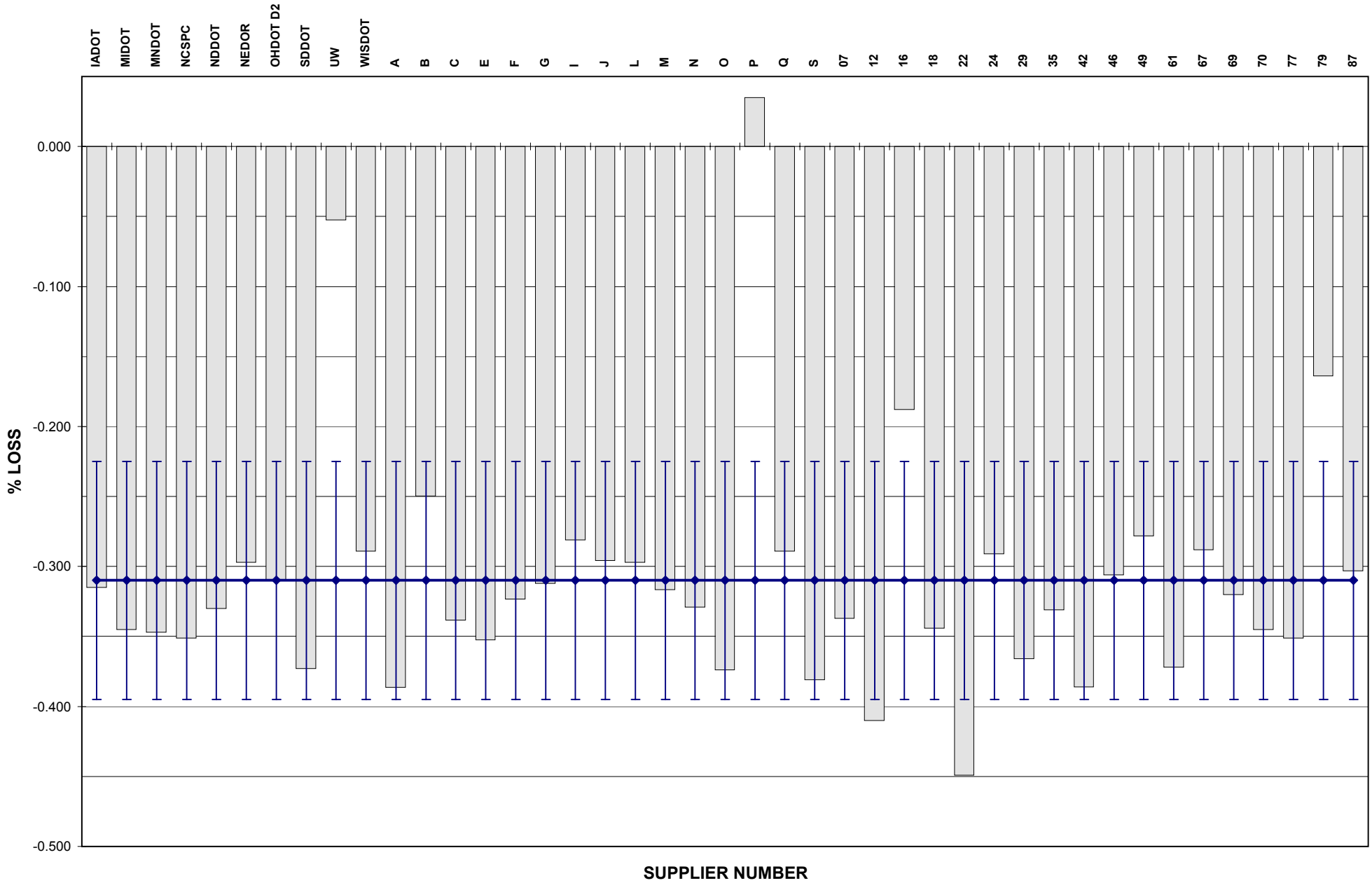
**DSR - RTFO**



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**SUMMARY B**  
**PG 64-22**  
**DSR - PAV**

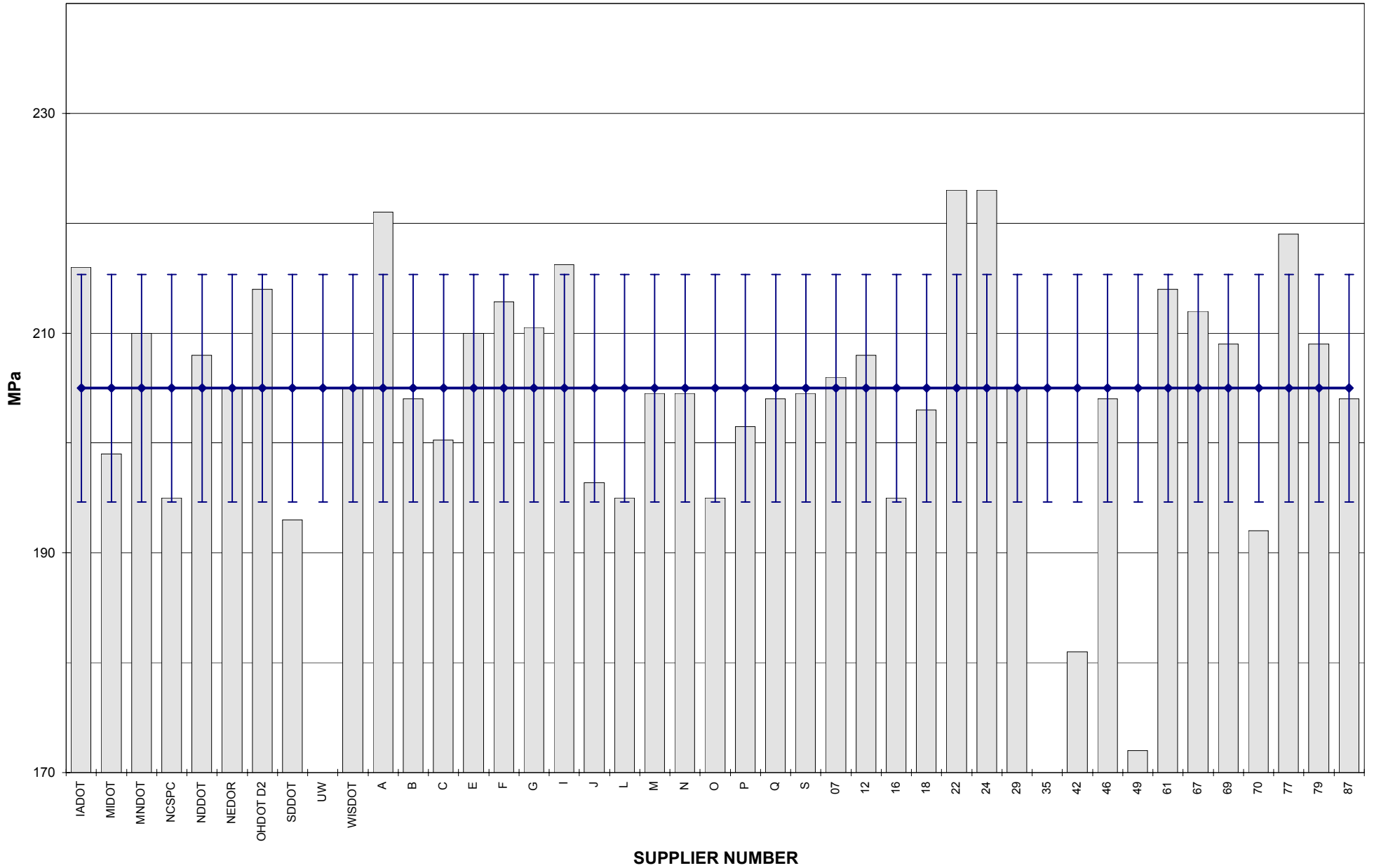


**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-3**  
**SUMMARY B**  
**PG 64-22**  
**RTFO MASS LOSS**





**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-3**  
**SUMMARY B**  
**PG 64-22**  
**BBR STIFFNESS**



**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-3**  
**SUMMARY B**  
**PG 64-22**  
**BBR m-VALUE**

