

Combined State Binder Group

**Method of Acceptance for
Asphalt Binders**

**Round Robin 2005-1
Summary B**

COMBINED STATE BINDER GROUP ROUND ROBIN 2005-1
SUMMARY B

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Supplier Number	Rotational Viscosity (Pa.s) @135°C	DSR Original (kPa) @70°C	DSR RTFO (kPa) @70°C	DSR PAV (kPa) @28°C	Mass Loss (%) @163°C	BBR S-value (MPa) @-12°C	BBR m-value @-12°C
IADOT	0.923	1.52	3.16	2,287	-0.193	196	0.331
MIDOT	0.875	1.44	3.20	2,437	-0.209	192	0.342
MNDOT	0.875	1.49	3.61	3,101	-0.221	207	0.319
NCSPC	0.877	1.53	3.33	2,138	-0.227	187	0.318
NDDOT	0.900	1.53	3.37	2,302	-0.203		
NEDOR		1.52	3.38	2,272	-0.053	188	0.330
OHDOT D2	0.892	1.98	4.18	3,258	-0.170	213	0.311
SDDOT	1.162	1.61	3.61	3,014	-0.120	192	0.316
UW	4.625	1.50	3.29	2,840	-0.167	227	0.320
WISDOT	0.975	1.35	3.01	2,279	-0.166	196	0.345
A	0.901	1.49	3.63	2,747	-0.195	195	0.337
B	0.898	1.44	3.37	2,483	-0.119	185	0.325
C	0.958	1.46	3.26	2,618	-0.216	192	0.338
E	0.894	1.47	3.33	2,657	-0.275	170	0.343
F	0.943	1.47	3.11	2,189	-0.162	197	0.332
I	0.931	1.51	3.51	2,778	-0.204	208	0.320
J	0.963	1.47	3.34	2,443	-0.170	188	0.328
L	0.882	1.54	3.61	3,124	-0.160	203	0.321
M	0.971	1.62	3.22	2,437	-0.167	200	0.329
N	0.904	1.51	3.38	1,932	-0.191	162	0.371
O	1.016	1.51	3.54	2,285	-0.164	187	0.336
P	0.899	1.48	3.37	2,252	-0.192	186	0.343
S	0.914	1.60	3.54	2,939	-0.175	183	0.324
T	0.938	1.46	3.23	2,230	-0.187	181	0.336
07	0.958	1.55	3.29	2,589	-0.198	192	0.334
12	0.919	1.49	3.38	3,040	-0.244	191	0.330
16	0.912	1.47	3.20	2,544	-0.140	187	0.334
18	0.925	1.50	3.66	2,540	-0.200	183	0.330
22	0.893	1.53	3.06	2,841	-0.024	203	0.331
24	0.920	1.56	3.55	3,019	-0.180	200	0.332
35	0.918	1.57	3.38	2,966	-0.132	156	0.328
37	0.900	1.35	3.20	3,560	-0.167	215	0.356
42	0.960	1.71	3.55	2,649	-0.101	165	0.343
46	0.883	1.49	3.25	2,200	-0.164	171	0.338
49	0.985	1.49	3.46	2,323	-0.176	171	0.338
61	0.907	1.27	2.70	2,319	-0.300	195	0.323
67	0.824	1.47	3.63	3,512	-0.213	176	0.323
69	0.970	1.51	3.17	2,496	-0.188	189	0.338
70	0.905	1.49	3.26	2,708	-0.215	180	0.333
77	0.950				-0.196	206	0.318
79	0.987	1.53	3.47	2,580	-0.180	190	0.334
Average	1.0208	1.5115	3.3693	2,623.14	-0.1786	190.09	0.3319
Std. Dev.	0.5870	0.1056	0.2382	381.47	0.0497	14.65	0.0112
Coef. of Var.	57.499	6.990	7.071	14.542	27.820	7.709	3.384

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A	Brookfield	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
51	0.902	1.48	3.76	2.736	-0.173	196	0.340
97	0.900	1.47	3.75	2.750	-0.186	193	0.335
98	0.902	1.53	3.37	2.754	-0.225	195	0.337
Average	0.901	1.49	3.63	2.747	-0.195	195	0.337

B							
01	0.900	1.43	3.48	2,651	-0.094	189	0.320
17	0.897	1.45	3.47	2,454	-0.114	184	0.333
45	0.897	1.46	3.17	2,345	-0.148	182	0.321
Average	0.898	1.44	3.37	2,483	-0.119	185	0.325

C							
21	0.969	1.47	3.26	2,679	-0.208	193	0.337
28	0.966	1.47	3.11	2,652	-0.209	195	0.336
66	0.946	1.46	3.44	2,572	-0.243	195	0.337
90	0.957	1.44	3.35	2,513	-0.208	190	0.340
99	0.952	1.44	3.14	2,672	-0.211	186	0.340
Average	0.958	1.46	3.26	2,618	-0.216	192	0.338

E							
15	0.888	1.46	3.27	2486	-0.270	171	0.347
89	0.900	1.47	3.39	2827	-0.280	169	0.339
Average	0.894	1.47	3.33	2,657	-0.275	170	0.343

F							
02	0.955	1.61	3.21	2,252	-0.181	197	0.333
11	0.923	1.59	3.02	2,189	-0.165	199	0.334
26	0.960	1.42	2.99	2,221	-0.151	201	0.328
29	0.919	1.35	2.80	1,966	-0.174	188	0.337
34	0.928	1.46	2.88	2,056	-0.155	193	0.336
36	0.980	1.47	3.26	2,295	-0.129	202	0.330
48	0.955	1.54	2.90	2,157	-0.169	200	0.329
56	0.919	1.41	3.34	2,358	-0.169	197	0.329
62	0.947	1.35	3.58	2,207	-0.166	192	0.330
Average	0.943	1.47	3.11	2,189	-0.162	197	0.332

I							
03	0.934	1.43	3.75	3,019	-0.212	208	0.322
13	0.940	1.57	3.72	2,945	-0.200	215	0.313
33	0.920	1.53	3.05	2,371	-0.200	202	0.325
Average	0.931	1.51	3.51	2,778	-0.204	208	0.320

J							
05	0.950	1.45	3.42	2,437	-0.184	188	0.329
08	1.004	1.44	3.30	2,560	-0.132	182	0.327
10	0.964	1.49	3.41	2,313	-0.206	192	0.325
31	0.954	1.46	3.25	2,420	-0.134	186	0.329
38	0.981	1.45	3.42	2,574	-0.198	190	0.327
41	0.950	1.47	3.29	2,406	-0.204	188	0.328
44	0.962	1.53	3.32	2,454	-0.138	190	0.330
52	0.958	1.51	3.26	2,343	-0.134	187	0.326
74	0.948	1.46	3.40	2,480	-0.198	190	0.328
Average	0.963	1.47	3.34	2,443	-0.170	188	0.328

L							
25	0.887	1.50	3.41	3,231	-0.207	199	0.319
59	0.877	1.57	3.80	3,017	-0.113	206	0.322
Average	0.882	1.54	3.61	3,124	-0.160	203	0.321

M							
04	0.950	1.84	3.23	2,419	-0.170	204	0.332
47	0.977	1.54	3.14	2,450	-0.167	196	0.325
57	0.987	1.47	3.30	2,443	-0.163	200	0.329
Average	0.971	1.62	3.22	2,437	-0.167	200	0.329

N							
43	0.908	1.48	3.32	1,942	-0.177	160	0.372
95	0.900	1.54	3.43	1,922	-0.205	163	0.369
Average	0.904	1.51	3.38	1,932	-0.191	162	0.371

O							
76	0.995	1.56	3.68	2155	-0.160	189	0.341
85	1.037	1.45	3.39	2414	-0.168	185	0.331
Average	1.016	1.51	3.54	2,285	-0.164	187	0.336

P							
71	0.898	1.41	3.28	1,968	-0.199	176	0.343
73	0.900	1.55	3.46	2,535	-0.184	196	0.342
Average	0.899	1.48	3.37	2,252	-0.192	186	0.343

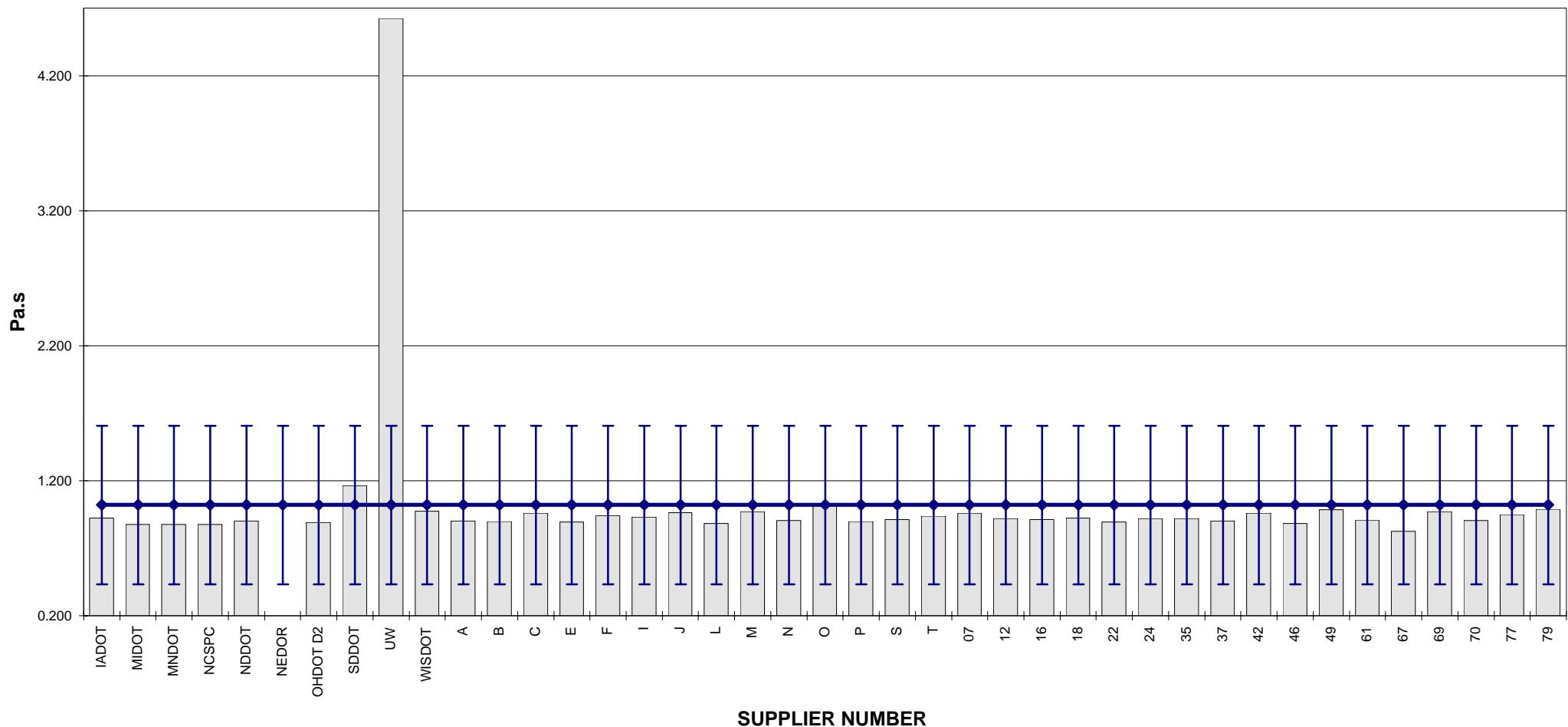
S							
53	0.902	1.70	3.73	2776	-0.153	166	0.327
64	0.925	1.49	3.36	3101	-0.197	200	0.320
Average	0.914	1.60	3.54	2939	-0.175	183	0.324

T							
54	0.941	1.50	3.25	2410	-0.179	186	0.332
87	0.940	1.43	3.25	2036	-0.182	176	0.335
88	0.933	1.44	3.18	2243	-0.201	181	0.340
Average	0.938	1.46	3.23	2230	-0.187	181	0.336

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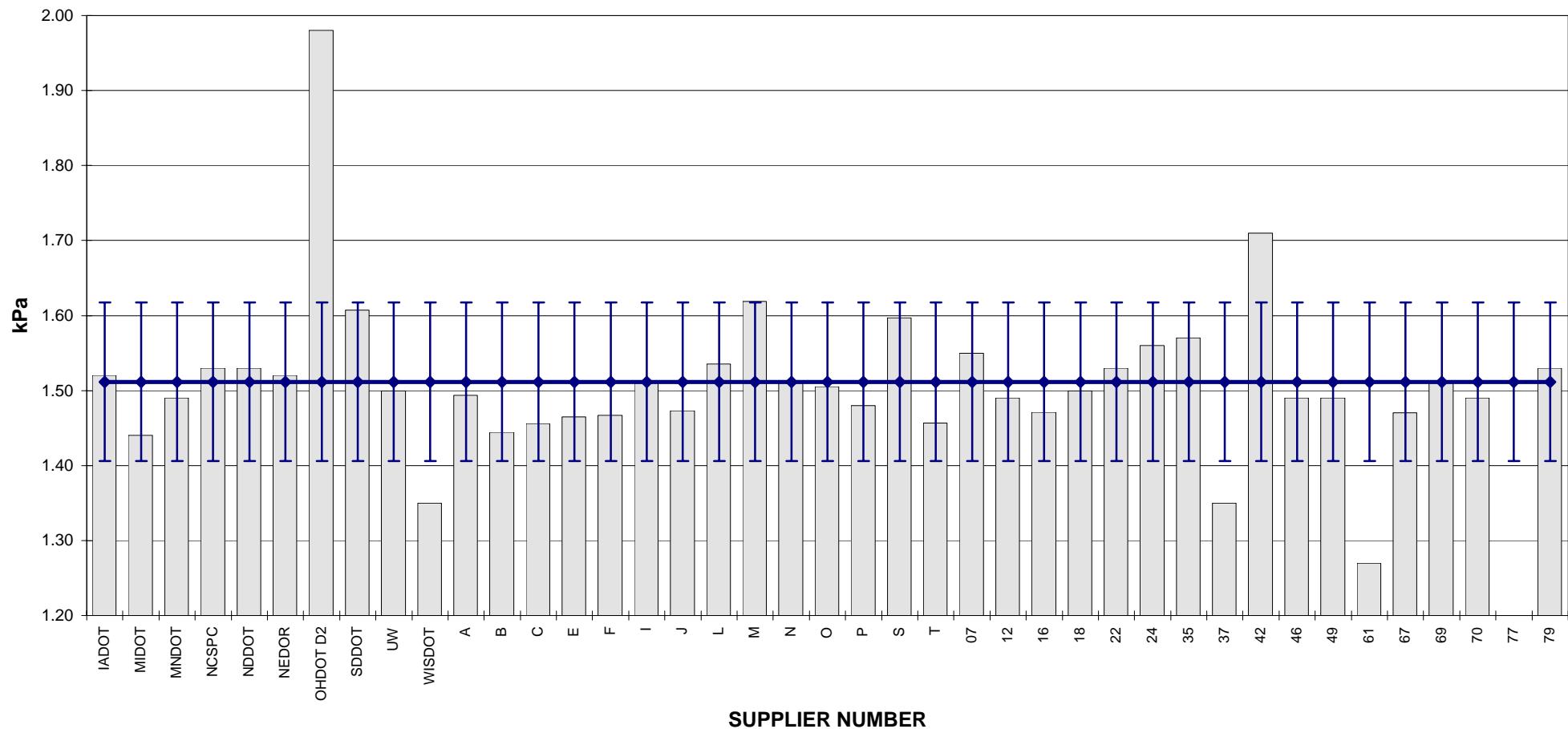
PG 70-22

ROTATIONAL VISCOSITY



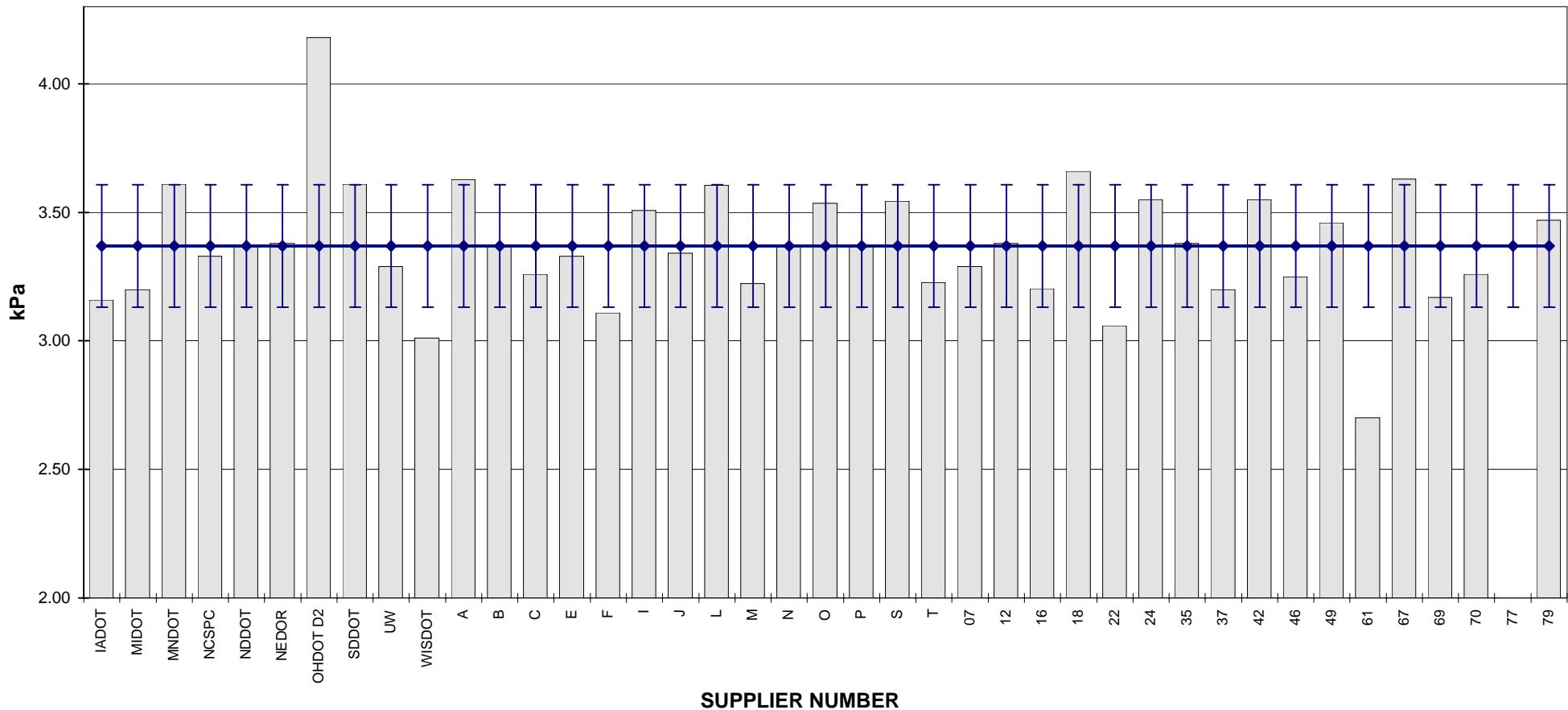
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DSR - ORIGINAL

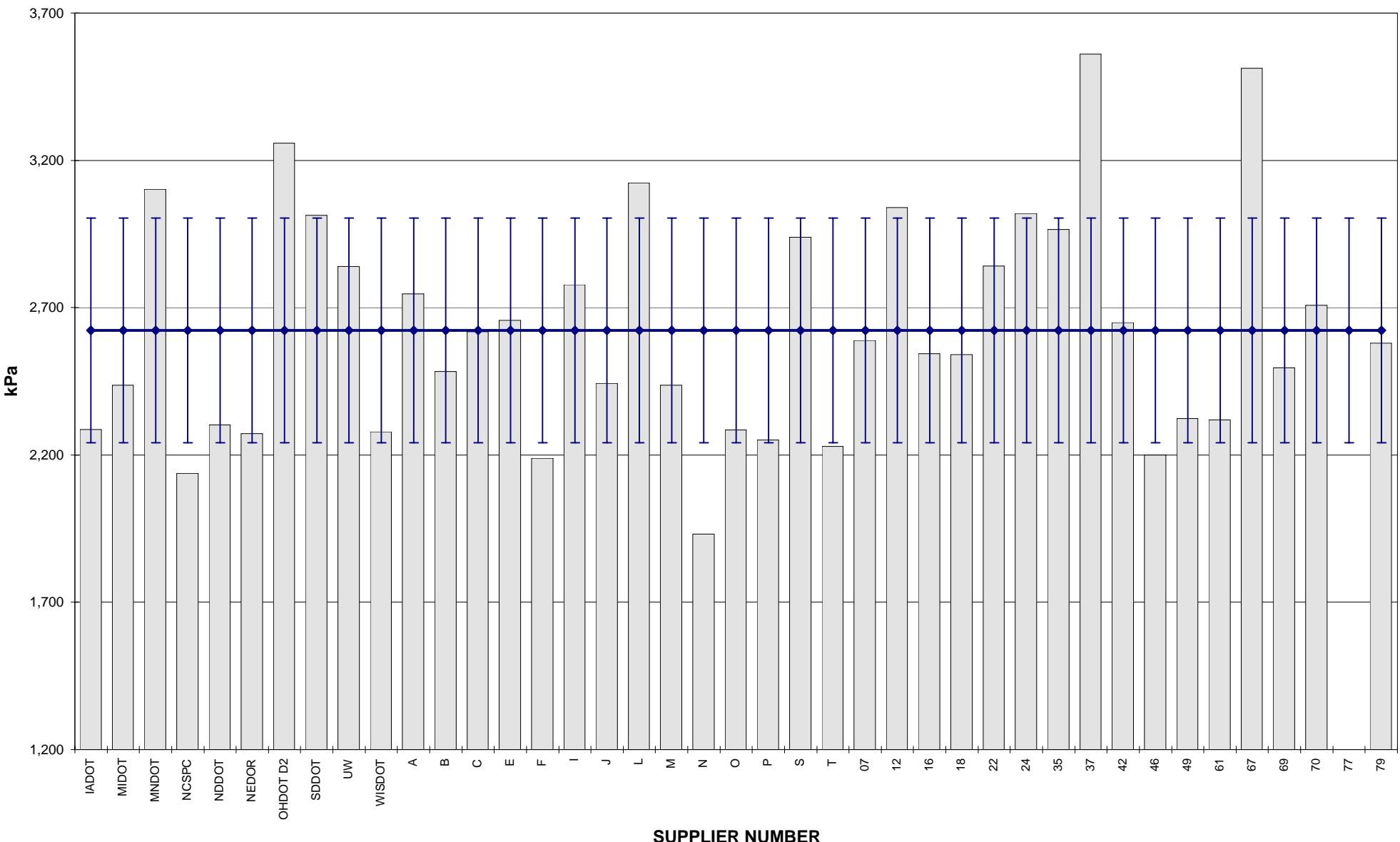


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DSR - RTFO



COMBINED STATE BINDER GROUP ROUND ROBIN 2005-1
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DSR - PAV

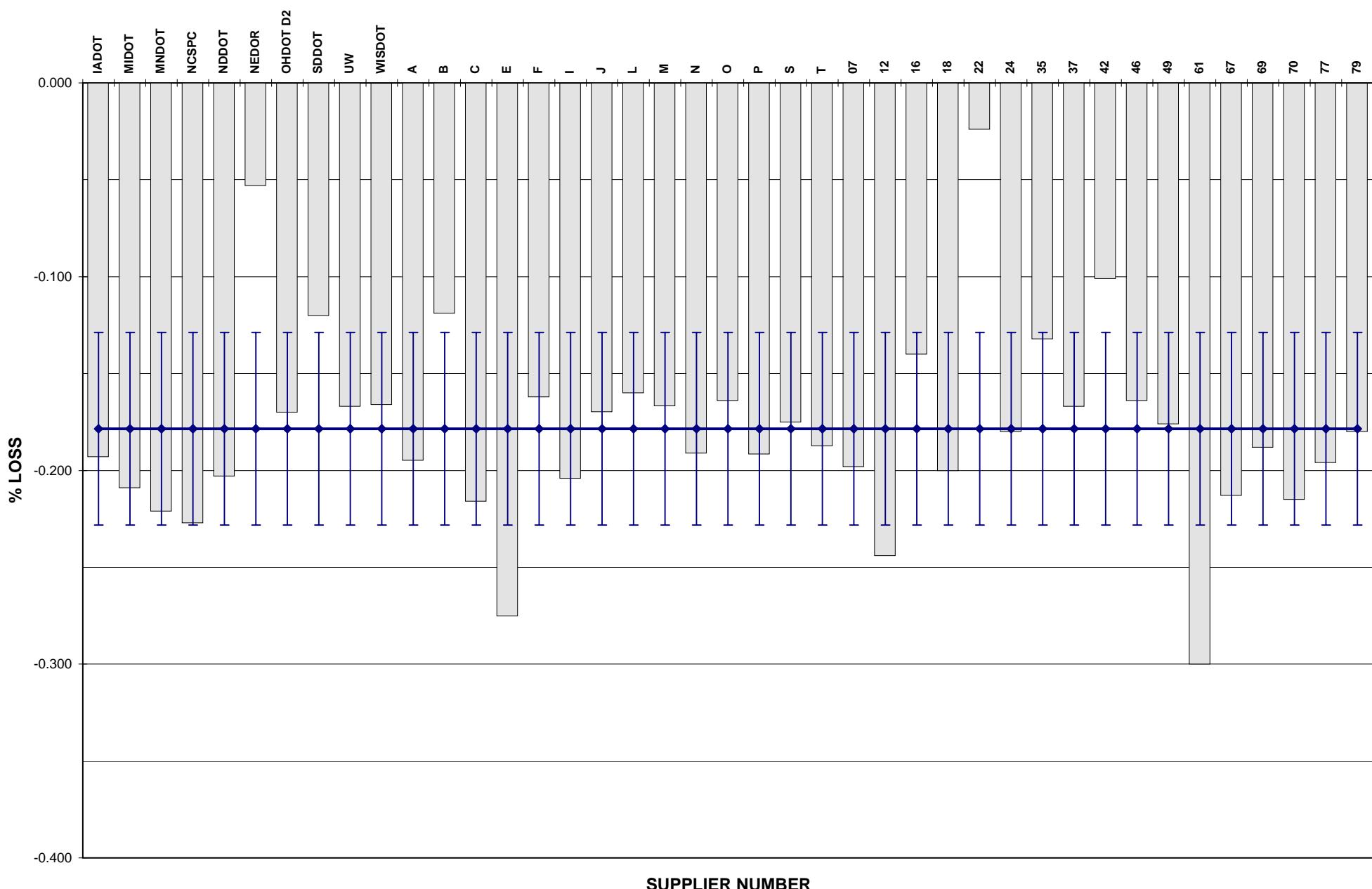


COMBINED STATE BINDER GROUP ROUND ROBIN 2005-1

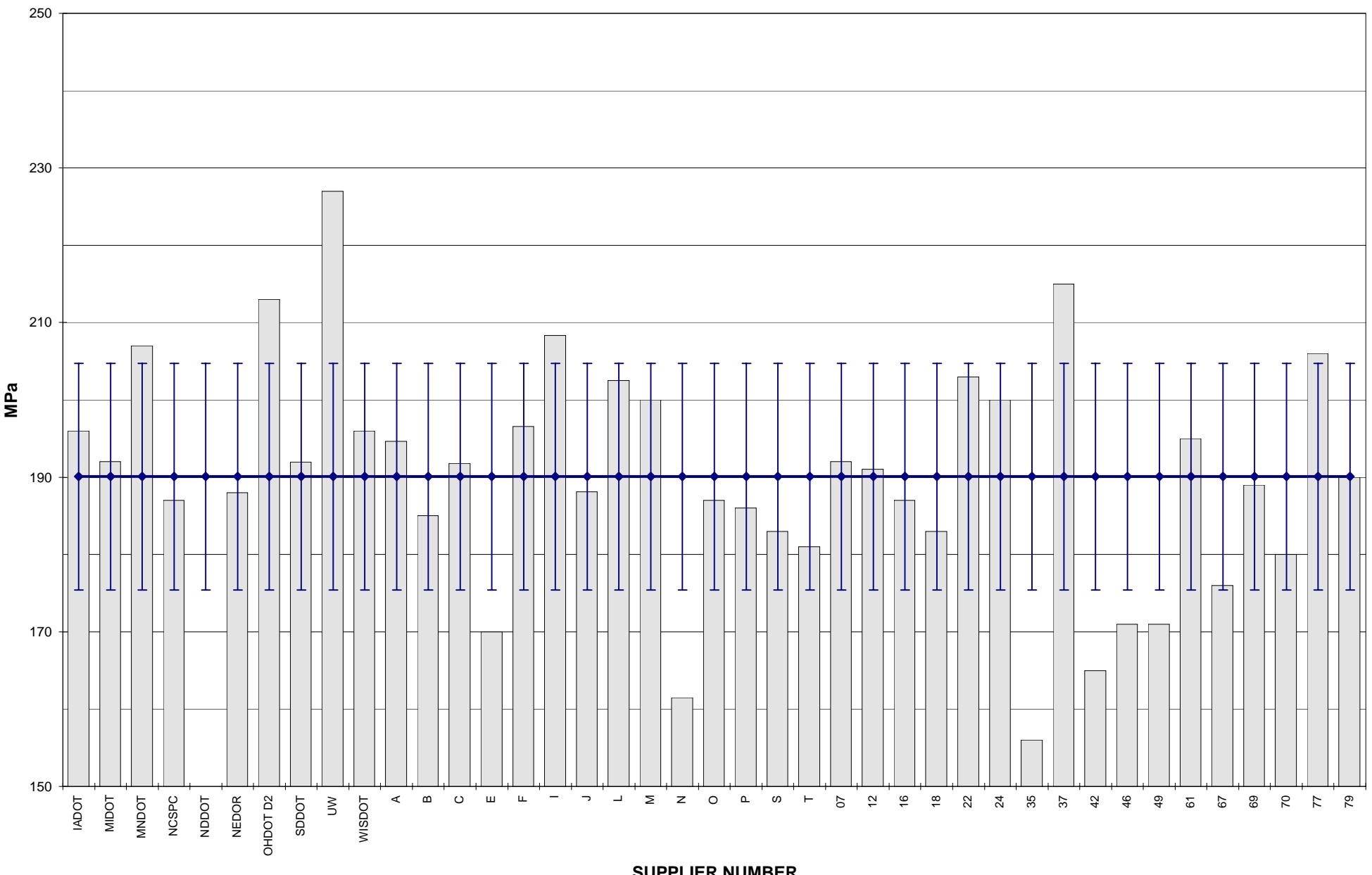
SUMMARY B

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RTFO MASS LOSS



COMBINED STATE BINDER GROUP ROUND ROBIN 2005-1
SUMMARY B
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BBR STIFFNESS



COMBINED STATE BINDER GROUP ROUND ROBIN 2005-1

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BBR m-VALUE

