



**Combined State Binder  
Group**

Method of Acceptance for  
Asphalt Binders

Round Robin 2004-4  
Summary B

**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-4  
SUMMARY B**

**PG 58-34**

<b>Supplier Number</b>	<b>Rotational Viscosity (Pa.s) @135°C</b>	<b>DSR Original (kPa) @58°C</b>	<b>DSR RTFO (kPa) @58°C</b>	<b>DSR PAV (kPa) @16°C</b>	<b>Mass Loss (%) @163°C</b>	<b>BBR S-value (MPa) @-24°C</b>	<b>BBR m-value @-24°C</b>
IADOT	0.503	1.55	3.47	2,326	-0.971	211	0.322
MIDOT	0.483	1.43	3.29	2,015	-0.939	206	0.330
MNDOT	0.500	1.53	3.85	2,851	-1.030	199	0.316
NCSPC	0.483	1.56	3.39	2,192	-0.978	217	0.313
NDDOT	0.490	1.49	3.35	2,110	-0.933	217	0.338
NEDOR		1.55	3.54	2,286	-0.830	209	0.326
OHDOT D2	0.488	1.85	3.55	2,273	-0.850	230	0.317
SDDOT	0.506	1.60	3.72	2,750	-0.883	208	0.321
UW	0.500	1.38	2.94	2,255	-0.947	262	0.282
WISDOT	0.520	1.59	3.31	2,136	-0.831	208	0.338
A	0.480	1.51	3.38	2,383	-0.933	225	0.327
B	0.495	1.42	3.46	1,932	-0.841	198	0.324
C	0.520	1.50	3.34	2,234	-0.973	218	0.324
E	0.525	1.50	3.47	2,271	-0.984	219	0.320
F	0.506	1.53	3.37	2,107	-0.913	212	0.325
G	0.515	1.47	3.35	2,084	-0.883	231	0.327
I	0.498	1.56	3.68	2,207	-0.867	214	0.320
J	0.520	1.45	3.27	1,985	-0.804	207	0.324
L	0.486	1.52	3.37	2,864	-0.727	215	0.332
M	0.527	1.47	3.29	1,637	-0.963	192	0.328
N	0.493	1.61	3.46	2,088	-0.907	217	0.337
O	0.535	1.57	3.93	2,258	-0.866	204	0.319
P	0.494	1.52	3.25	1,618	-0.596	196	0.335
S	0.515	1.59	3.65	2,004	-0.925	225	0.321
T	0.474	1.48	3.37	2,190	-0.869	211	0.326
07	0.520	1.46	3.06	2,192	-0.901	218	0.326
12	0.502	1.51	3.50	2,193	-0.996	217	0.328
16	0.506	1.22	3.47	2,460	-0.831	217	0.329
18	0.500	1.53	3.70	2,090	-1.002	209	0.328
22	0.491	1.47	2.92	2,338	0.102	240	0.318
24	0.505	1.57	3.74	2,249	-0.795	215	0.343
35	0.503	2.12	3.35	2,661	-0.787	240	0.316
42	0.509	1.55	3.82	1,979	-0.372	161	0.336
46	0.463	1.52	3.83	2,203	-0.982	220	0.327
49	0.510	1.54	3.79	2,278	-0.980	208	0.327
61	0.513	1.52	3.36	2,162	-1.060	197	0.332
67	0.495	1.53	4.24	2,614	-0.916	231	0.327
69	0.453	1.41	3.03	2,100	-0.938	214	0.326
70	0.515	1.52	3.42	2,080	-1.030	214	0.320
77	0.520	1.52	3.86	2,472	-0.975	229	0.322
79	0.500	1.53	3.49	1,992	-0.992	224	0.334
<b>Average</b>	0.502	1.53	3.48	2,222	-0.871	215	0.325
<b>Std. Dev.</b>	0.0172	0.1284	0.2728	264.49	0.1981	15.76	0.0097
<b>Coef. of Var.</b>	3.439	8.389	7.843	11.902	22.750	7.343	2.979

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A	Brookfield	ODSR	RTFO DSR	PAVDSR	Mass Loss	S-value	m-value
51	0.478	1.48	3.28	2.386	-0.938	230	0.329
97	0.480	1.54	3.44	2.383	-0.931	222	0.327
98	0.482	1.52	3.43	2.379	-0.931	223	0.326
Average	0.480	1.51	3.38	2.383	-0.933	225	0.327

B							
01	0.500	1.44	3.65	2.074	-0.832	200	0.323
17	0.490	1.37	3.46	1.849	-0.885	201	0.328
45	0.495	1.45	3.27	1.872	-0.807	193	0.322
Average	0.495	1.42	3.46	1.932	-0.841	198	0.324

C							
21	0.513	1.50	3.35	2.210	-0.987	220	0.322
28	0.522	1.49	3.36	2.241	-0.973	225	0.321
66	0.523	1.50	3.37	2.287	-0.983	214	0.326
90	0.524	1.51	3.41	2.143	-0.967	215	0.325
99	0.519	1.50	3.20	2.288	-0.954	217	0.324
Average	0.520	1.50	3.34	2.234	-0.973	218	0.324

E							
15	0.525	1.51	3.41	2.391	-0.959	217	0.318
89	0.525	1.49	3.52	2.150	-1.009	220	0.321
Average	0.525	1.50	3.47	2.271	-0.984	219	0.320

F							
02	0.517	1.60	3.33	2.097	-0.929	218	0.322
11	0.498	1.45	3.24	2.258	-0.907	218	0.320
29	0.520	1.52	3.26	1.984	-0.909	199	0.325
34	0.512	1.57	3.46	2.027	-0.899	220	0.325
48	0.492	1.50	3.37	1.887	-0.912	216	0.326
56	0.515	1.46	3.50	2.339	-0.918	201	0.328
62	0.487	1.58	3.43	2.156	-0.915	211	0.326
Average	0.506	1.53	3.37	2.107	-0.913	212	0.325

G							
26	0.515	1.44	3.32	2.140	-0.883	233	0.328
36	0.515	1.50	3.37	2.028	-0.882	228	0.325
Average	0.515	1.47	3.35	2.084	-0.883	231	0.327

I							
03	0.497	1.57	3.63	2.359	-0.871	205	0.318
09	0.501	1.58	3.69	2.506	-0.858	214	0.322
13	0.498	1.54	3.56	1.749	-0.873	227	0.318
33	0.497	1.56	3.84	2.213	-0.867	208	0.320
Average	0.498	1.56	3.68	2.207	-0.867	214	0.320

J							
05	0.522	1.47	3.26	1.940	-0.781	198	0.322
08	0.521	1.46	3.24	2.147	-0.901	212	0.330
10	0.513	1.50	3.28	1.992	-0.783	210	0.321
31	0.523	1.43	3.39	1.733	-0.758	211	0.330
38	0.523	1.45	3.34	1.999	-0.911	206	0.322
41	0.521	1.40	3.15	1.894	-0.748	202	0.320
44	0.520	1.47	3.35	2.091	-0.746	208	0.325
52	0.521	1.44	3.35	1.842	-0.914	214	0.322
65	0.516	1.44	3.23	2.028	-0.746	202	0.324
74	0.520	1.42	3.15	2.186	-0.751	208	0.327
Average	0.520	1.45	3.27	1.985	-0.804	207	0.324

L							
25	0.487	1.49	3.46	2.798	-0.751	215	0.331
59	0.485	1.54	3.28	2.930	-0.702	215	0.333
Average	0.486	1.52	3.37	2.864	-0.727	215	0.332

M							
04	0.448	1.43	3.33	1.661	-0.947	187	0.328
37	0.453	1.45	3.13	1.621	-0.953	200	0.328
47	0.603	1.48	3.42	1.638	-0.972	186	0.325
57	0.605	1.54	3.27	1.629	-0.980	194	0.331
Average	0.527	1.47	3.29	1.637	-0.963	192	0.328

N							
43	0.496	1.55	3.40	2.087	-0.905	217	0.338
95	0.490	1.66	3.52	2.089	-0.908	216	0.336
Average	0.493	1.61	3.46	2.088	-0.907	217	0.337

O							
76	0.535	1.49	3.83	2.121	-0.914	208	0.328
85	0.535	1.65	4.03	2.395	-0.818	200	0.309
Average	0.535	1.57	3.93	2.258	-0.866	204	0.319

P							
71	0.492	1.48	3.06	1.338	-0.586	187	0.342
73	0.495	1.56	3.43	1.897	-0.606	205	0.328
Average	0.494	1.52	3.25	1.618	-0.596	196	0.335

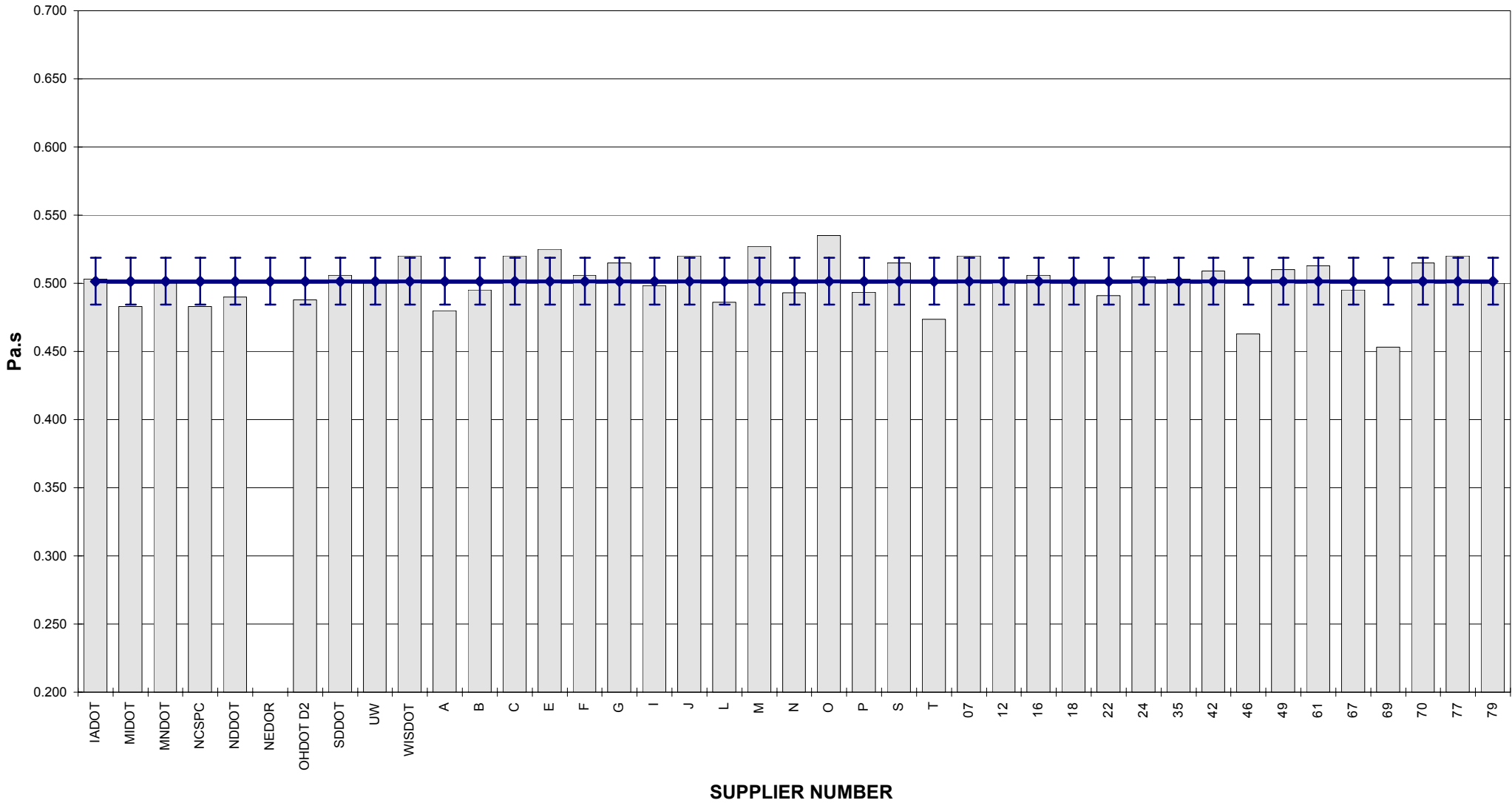
S							
53	0.515	1.59	3.59	1.780	-0.91	228	0.317
64	0.515	1.58	3.71	2.227	-0.939	221	0.324
Average	0.515	1.585	3.65	2.004	-0.925	225	0.321

T							
54	0.472	1.49	3.41	2.244	-0.843	205	0.332
87	0.462	1.51	3.44	2.099	-0.905	207	0.329
88	0.487	1.43	3.26	2.228	-0.859	221	0.318
Average	0.474	1.48	3.37	2.190	-0.869	211	0.326

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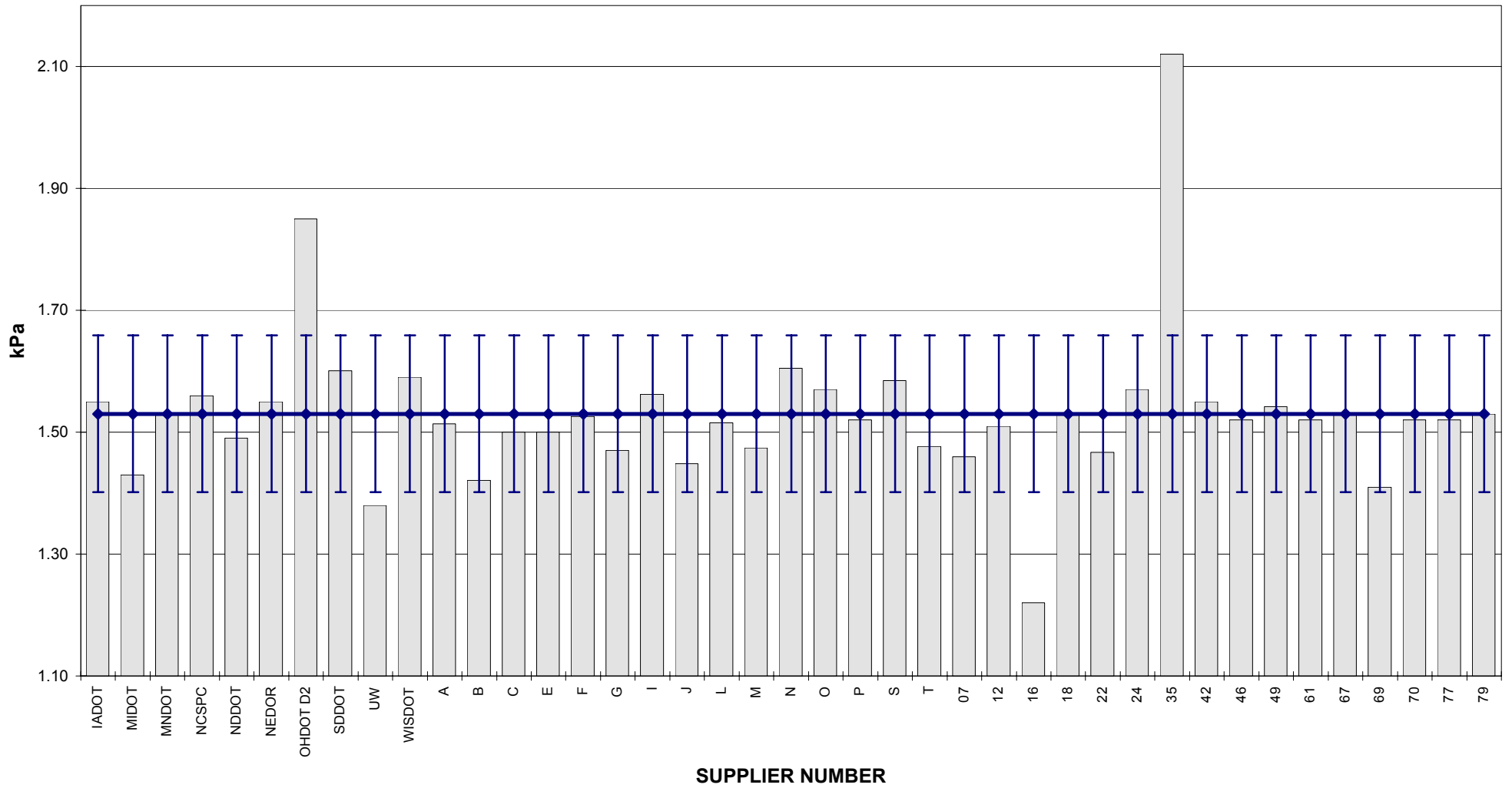
PG 58-34

ROTATIONAL VISCOSITY



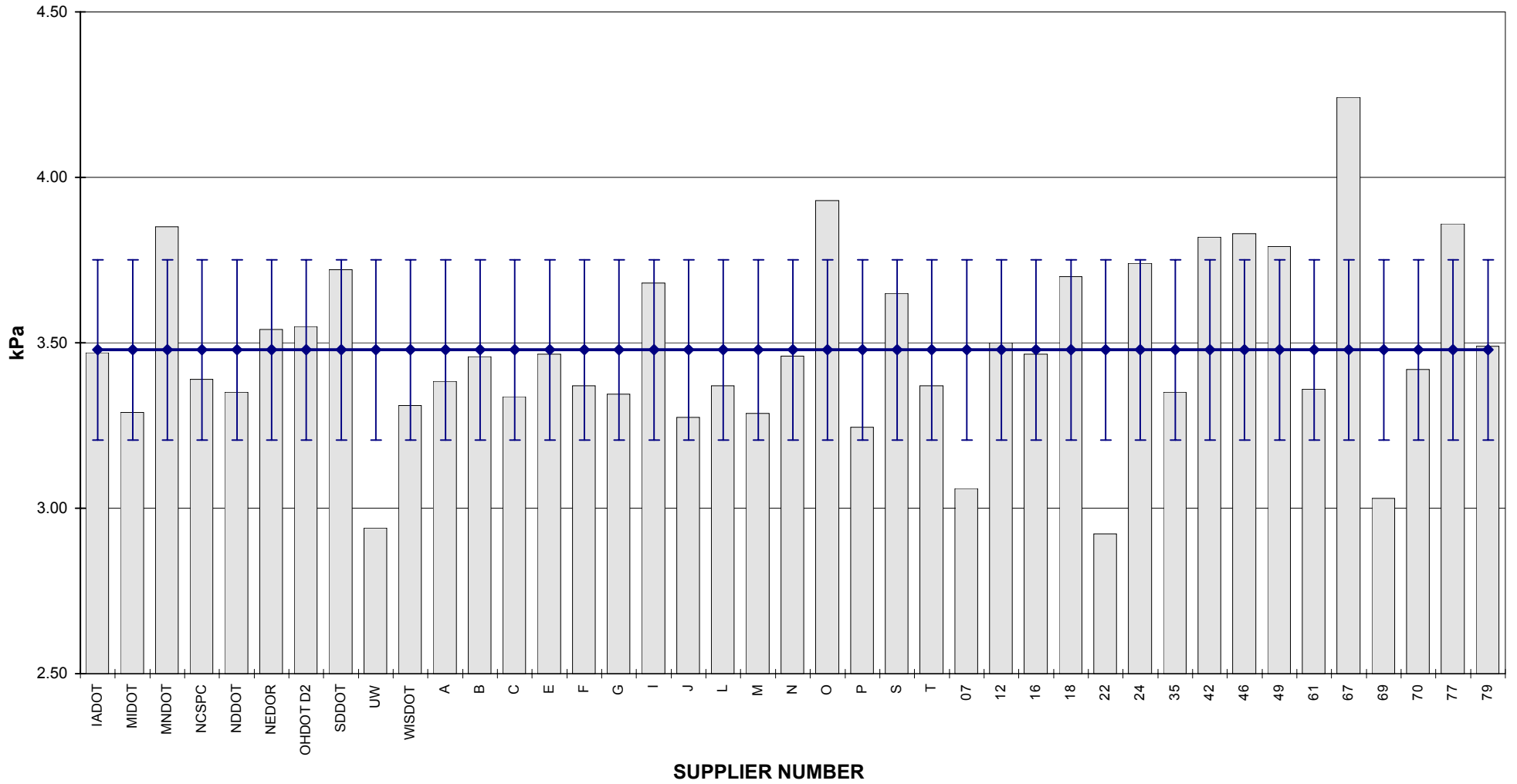
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**DSR - ORIGINAL**

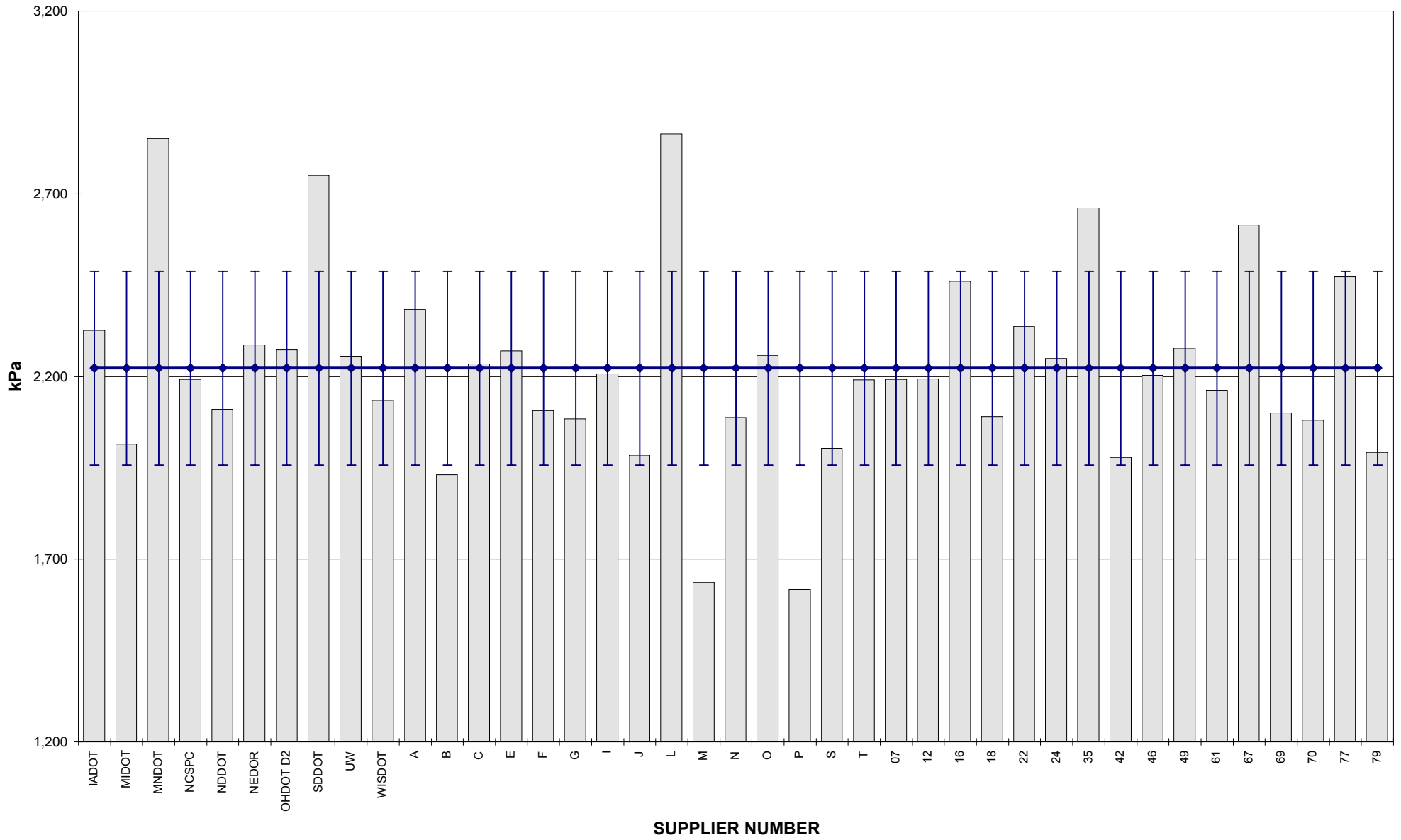


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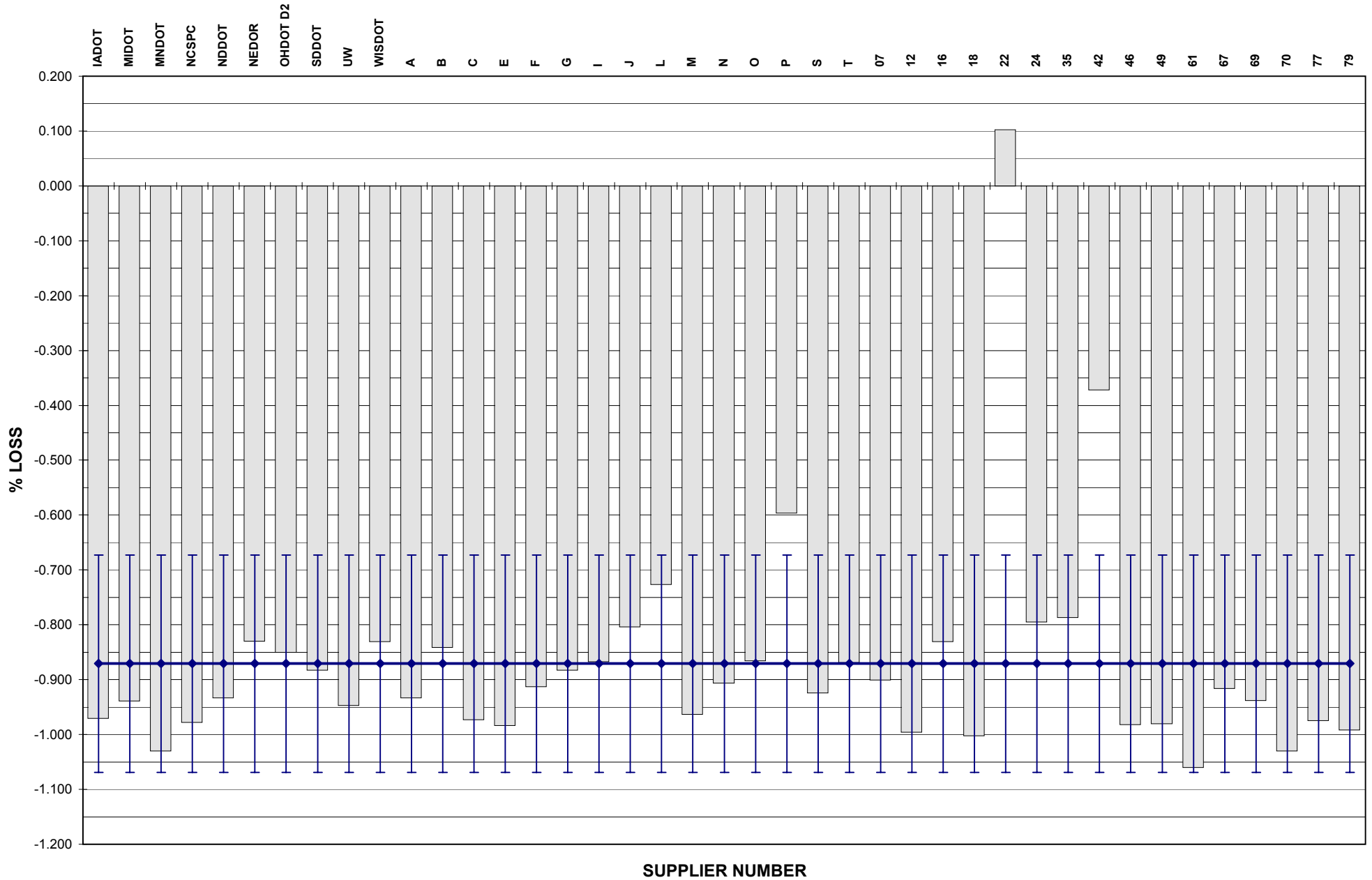
**DSR - RTFO**



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**DSR - PAV**

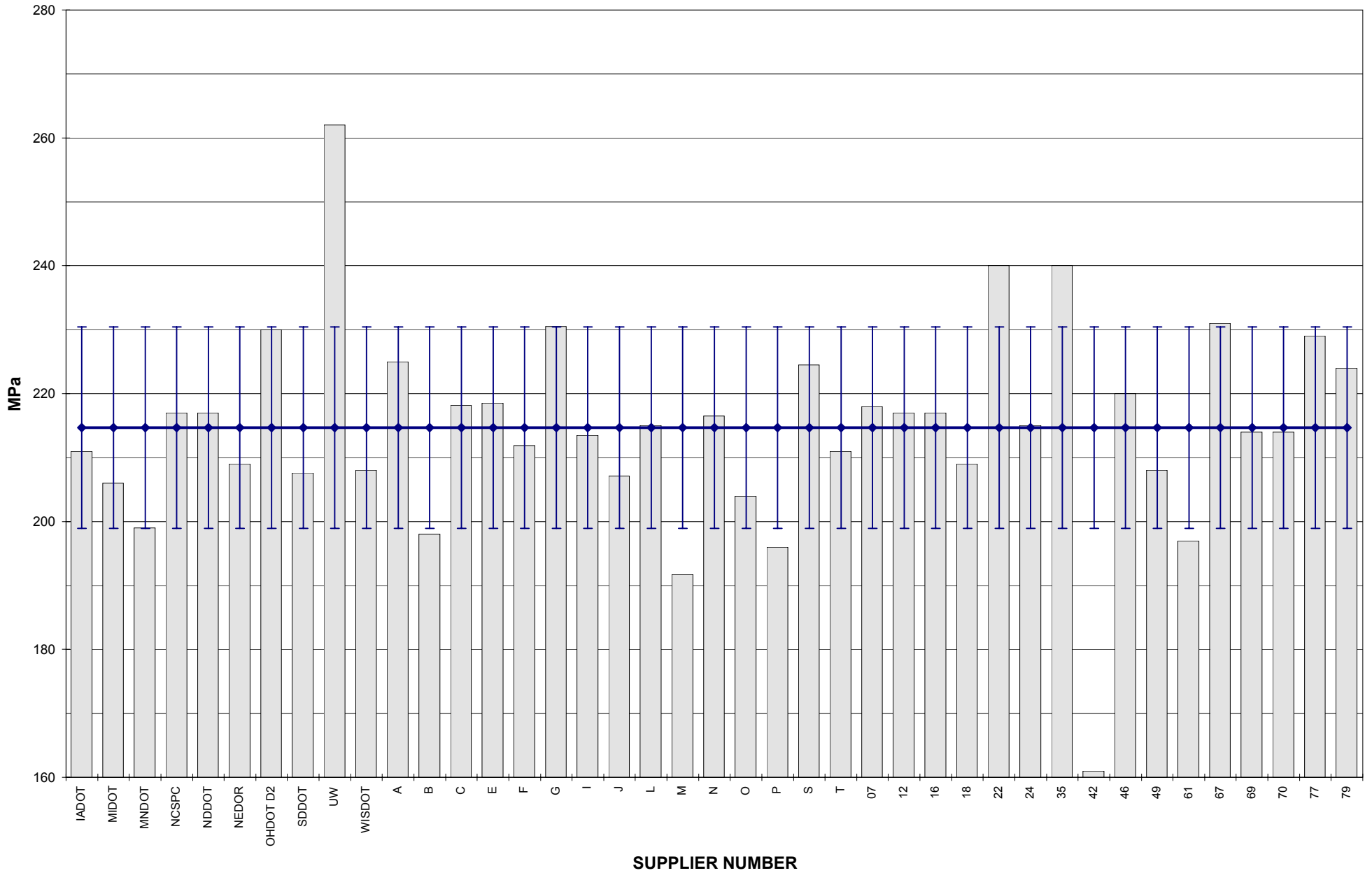


**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-4**  
**SUMMARY B**  
**PG 58-34**  
**RTFO MASS LOSS**





**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-4**  
**SUMMARY B**  
**PG 58-34**  
**BBR STIFFNESS**



**COMBINED STATE BINDER GROUP ROUND ROBIN 2004-4**  
**SUMMARY B**  
**PG 58-34**  
**BBR m-VALUE**

