

PCCAS Ground

Tire Round Robin

April 6, 2015

- The samples will be tested as follows:
 - Sample A PG 88-16
 - Sample B PG 82-22
 - Sample C PG 88-22
- They are all field samples.
- This is the second study with 3 different suppliers involved.

SAMPLES

Property	Test Method	Sample B-1	Sample B-2	Sample B-3	B using 28 grams
		PG 82-22	PG 82-22	PG 82-22	PG 82-22
<u>Original Binder</u>					
Dynamic Shear,		82	82	82	
Test Temperature, °C		1.60	1.76	2.07	
G*/sin (delta), kPa		1.44	1.60	1.88	
G*, kPa		64.2	65.6	65.0	
Phase Angle, °					
<u>RTFO Test Aged Binder</u>					
Dynamic Shear,		82	82	82	82
Test Temperature, °C	G*/sin	2.84	3.02	3.24	3.67
(delta), kPa		2.58	2.71	2.91	3.21
G*, kPa		65.6	63.9	64.1	60.9
Phase Angle, °					
Elastic Recovery, % (25°C)		82.5	80	82.5	82.5
Mass Change, %		come out in oven even tilting it			did not do
<u>RTFO Test and PAV Aged Binder</u>					
PAV Aging Temperature, °C		110	110	110	110
Dynamic Shear,		34	34	34	34
Test Temperature, °C	G* sin	578	424	376	485
(delta), kPa		680	514	457	579
G*, kPa		58.3	55.5	55.3	56.8
Phase Angle, °					
Bending Beam Rheometer					
Test Temperature, °C		-12	-12	-12	-12
S-value, MPa		121	121	107	96
M-value		0.342	0.359	0.352	0.372