



Interfibe

Sealcoat Systems

Interfibe In Bituminous Sealers

- **Interfibe contracted PRI of Tampa, Florida to compare the following sealer systems:**

<u>RESIN</u>	<u>Weight/gallon</u>	
Propane DeAsphalt (PDA)	8.7	46.9%
Slow Set Hard Asphalt (SS1H)	8.6	74.6%
Coal Tar Pitch (CTP)	9.4	11.3%

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Tests performed by PRI:

- Saybolt ASTM D88 - measurement of the viscosity of the resin
- Brookfield ASTM D219 - measurement of the viscosity, sheer thing and thixotropic properties of the coating.
- Physical properties ASTM D3910

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- Properties measured: ASTM D3910
 - **Consistency** - a measure of the effect of fiber on the viscosity of the emulsion which relates to application.
 - **Set Time** - a measure of time to dry of the emulsion to a firm set (lower means that it dries more quickly).
 - **Wet Track Abrasion** - a measure of how much emulsion is removed during a controlled laboratory test which abrades or 'scrubs' the emulsion with a rubber material and water for a controlled period over a specific area (lower is better).
 - **Cure Time** - a measure of time that it takes an emulsion to reach maximum cohesive strength (cohesion).
 - **Cohesion** - a measure of internal strength of the emulsion or force to internally break apart the emulsion (higher the better).

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Propane DeAsphalt (PDA) Formulas:

Blend Matrix	Blend 0%	Blend 1%	Blend 1.5%	Blend 2.5%
PDA Emulsion	75.0%	74.0%	73.5%	72.5%
Interfibe FTP	0.0%	1.0%	1.5%	2.5%
Sand	25.0%	25.0%	25.0%	25.0%

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Propane DeAsphalt Physical Properties Measured:

		Blend 0%	Blend 1%	Blend 1.5%	Blend 2.5%
Testing Properties		test methods			
Brookfield @ 77 F Cps	D2196	190.00	660	1090	4345
Set Time, h	D3910	1.50	1.75	2.25	2.25
Wet Track Abrasion, g/sq ft	D3910	2.09	1.04	3.83	4.87
Cure Time/hr	D3910	2.50	3.0	3.5	3.5
Cohesion/in-lb	D3910	9	27.0	27.0	27.0

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Slow Set Hardness Emulsion (SS1H) Formulas:

Blend Matrix	SS1H 0%	SS1H 1%	SS1H 1.5%
SS1H	75%	74%	73.5%
Interfibe FTP	0%	1%	1.5%
Sand	25%	25%	25%

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Slow Set Hardness Emulsion Physical Properties Results:

		SS1H 0%	SS1H 1%	SS1H 1.5%
Testing Properties	test methods			
Brookfield @ 77 F Cps	D2196	525	1050	2170
Set Time, h	D3910	2.00	2.25	2.50
Wet Track Abrasion, g/sq ft	D3910	4.87	6.26	8.00
Cure Time/hr	D3910	3.5	3.75	3.75
Cohesion/in-lb	D3910	14.0	17.0	19.0

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Coal Tar Pitch (CTP) Formulas:

Blend Matrix	Blend CTP 0%	Blend CTP 1%	Blend CTP1.5%	Blend CTP2.5%
CTP Emulsion 30%	75.0%	74.0%	73.5%	72.5%
Interfibe FTP	0.0%	1.0%	1.5%	2.5%
Sand	25.0%	25.0%	25.0%	25.0%

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Coal Tar Pitch Physical Properties Results

		Blend CTP 0%	Blend CTP 1%	Blend CTP1.5%	BLEND CTP2.5%
Testing Properties	test methods				
Brookfield @ 77 F Cps	D2196	620	1150	1550	2270
Set Time, h	D3910	4.75	4.25	4.25	4.50
Wet Track Abrasion, g/sq ft	D3910	10.09	5.92	5.22	4.52
Cure Time/hr	D3910	6	6	6	6
Cohesion/in-lb	D3910	16.0	16.0	16.0	16.0
Weight Per Gallon	D2939	10.69	10.50	10.53	10.80

Interfibe in Bituminous Sealers

- **Set Time Percent Change**

<u>RESIN</u>	<u>Fiber 0%</u>	<u>Fiber 1%</u>	<u>Fiber 1.5%</u>
Propane DeAsphalt (PDA)	0.0%	+16%	+50%
Slow Set Hard Asphalt (SS1H)	0.0%	+12%	+25%
Coal Tar Pitch (CTP)	0.0%	-11%	-11%

Interfibe In Bituminous Sealers

- **Cure Time Percent Change**

<u>RESIN</u>	<u>Fiber 0%</u>	<u>Fiber 1%</u>	<u>Fiber 1.5%</u>
Propane DeAsphalt (PDA)	0.0%	+20%	+40%
Slow Set Hard Asphalt (SS1H)	0.0%	+7%	+7%
Coal Tar Pitch (CTP)	0.0%	-4%	-4%

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- **Wet Track Abrasion Percent Change**

<u>RESIN</u>	<u>Fiber 0%</u>	<u>Fiber 1%</u>	<u>Fiber 1.5%</u>
Propane DeAsphalt (PDA)	0.0%	+49%	-58%
Slow Set Hard Asphalt (SS1H)	0.0%	-28%	-64%
Coal Tar Pitch (CTP)	0.0%	+43%	+49%

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- **Cohesion Percent Change**

<u>RESIN</u>	<u>Fiber 0%</u>	<u>Fiber 1%</u>	<u>Fiber 1.5%</u>
Propane DeAsphalt (PDA)	0.0%	+200%	+200%
Slow Set Hard Asphalt (SS1H)	0.0%	+22%	+36%
Coal Tar Pitch (CTP)	0.0%	0.0%	0.0%

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Overall Results

- Consistency
 - The addition of from 1 to 1.5 percent fiber resulted in a minimal increase in viscosity in all emulsions
 - The increase in viscosity was small enough so that applications would not be affected

Interfibe In Bituminous Sealers



- **SUMMARY**

- A small addition of fiber(1 to 1.5 percent) will have a very positive effect on the overall performance of emulsion sealers
- An additional benefit is the bridging effect fibers produce over 'alligator' surfaces

Addition of Interfibe FTP



- Interfibe FTP is a specially treated cellulose fiber that is designed to ‘wet out’ easily in emulsion systems
- We recommend that the fiber be added before the sand
- In certain instances the addition of a biocide or fungicide will enhance the package stability of the finished product

Interfibe's long term commitment to the

Bituminous Sealer Industry

- Interfibe is committed to providing our customers with innovative products and technical support
- Interfibe is committed to providing our customers with products that conform to the highest quality standards
- Interfibe is committed to providing a stable and timely source of cellulose fiber

*FOR ADDITIONAL
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