

TEST & EVALUATION REPORT

November 18, 2014

Report for: MC Schaff & Associates
2116 Pioneer Avenue
Cheyenne, WY 82001

Attn: Jeff Wolfe

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Sample Data / Information:

Core ID	Location	Centerline Offset	Runway ID	Core Date	Application Date	Application Rate	Notes	Core Dimensions D x H
1-1	Sta 5+95	63-ft Left	5	9/17/14	N/A	N/A	Untreated	5.7 x 1.5"
1-2	Sta 6+00							5.7 x 1.7"
1-3	Sta 6+05							5.7 x 1.7"
1-1 RS	Sta 5+95	63-ft Left	5	10/27/14	9/24/14	0.065 gal/yd ²	Rejuvaseal	5.7 x 3.0"
1-2 RS	Sta 6+00							5.7 x 3.1"
1-3 RS	Sta 6+05							5.7 x 3.2"
3-1	Sta 52+45	55-ft Left	23	9/17/14	N/A	N/A	Untreated	5.7 x 1.7"
3-2	Sta 52+50							5.7 x 1.5"
3-3	Sta 52+55							5.7 x 1.5"
3-1 RS	Sta 52+45	55-ft Left	23	10/27/14	9/19/14	0.065 gal/yd ²	Rejuvaseal	5.7 x 2.9"
3-2 RS	Sta 52+50							5.7 x 2.8"
3-3 RS	Sta 52+55							5.7 x 2.8"

OBJECTIVE: Compare the treated and untreated sections for compliance with FAA Item P-632 requirements.

DATA/RESULTS:

PROPERTY		TEST METHOD	RESULTS: Cores 1-1, 1-2, 1-3			
			Untreated	Treated	% Reduction	
Item P-632 Requirements						
Absolute Viscosity, Poise		60°C	ASTM D2171	110,458	10,064	90.9
Dynamic Shear	Complex Modulus, G*, kPa		AASHTO T 315	5.55	0.933	83.2
	Viscosity, η*, Pa.s			5,550	933	83.2
	Phase Angle, δ. °			71.1	81.6	---

PROPERTY		TEST METHOD	RESULTS: Cores 3-1, 3-2, 3-3			
			Untreated	Treated	% Reduction	
Item P-632 Requirements						
Absolute Viscosity, Poise		60°C	ASTM D2171	71,165	7,718	89.2
Dynamic Shear	Complex Modulus, G*, kPa		AASHTO T 315	3.8	0.671	82.3
	Viscosity, η*, Pa.s			3,800	671	82.3
	Phase Angle, δ. °			72.9	83.7	---

PROCEDURE: All cores were saw-cut removing the top 3/8" layer of the core. The material was broken up and extracted using method ASTM D 2172 (Method A) with toluene and ASTM D 5404 to recover the binder.



DISCUSSION: Item P-632 requires that pavements less than three years old decrease in viscosity by at least 25% with the addition of rejuvenator. On a pavement greater than 3 years old, a viscosity reduction of 40% is required. Both locations tested exceeded the minimum reduction requirements.

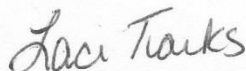
Tested by:



Jimmy Ynigues, Pavement Technician

Date: November 18, 2014

Reviewed by:



Laci Tiarks-Martin, Director

Date: November 18, 2014