



October 12, 2012
January 30, 2014

Updated with Thickness and additional requested information.

Mail To:

Doug Evans
New Pig
5 Pork Ave.
Tipton, PA 16684

email: dougev@newpig.com
email:bethp@newpig.com

Bill To:

<= Same (P.O. Number: 361999)

Dear Mr. Evans:

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

TRI Job Reference Number: E2372-38-10

Material(s) Tested: 2 New Pig 130 mil Well Pad Liner Nonwoven Geotextile Composite

Test(s) Requested: Permittivity (ASTM D 4491, 6 inch Constant Head)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Mansukh Patel
Sr. Laboratory Coordinator
Geosynthetic Services Division
www.GeosyntheticTesting.com

cc: Sam R. Allen, Vice President and Division Manager



GEOTEXTILE TEST RESULTS

TRI Client: New Pig

Material: New Pig 130 mil Well Pad Liner Nonwoven Geotextile Composite
Sample Identification: 8/27/12 10/10/10 #47001 New Pig Part # MAT 7000
TRI Log #: E2372-38-10

Test Date: 10/09/12

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.
	1	2	3	4	5	6	7	8	9	10		
Constant Head Permittivity (ASTM D 4491, 6 inch Constant Head; 2 in opening)												
Sample has been sealed at edge by RTV Sealant on Edge of specimen -Sealant had been cured for Three days before testing)												
Water Temp. (C):	20											
Correction Factor:	1.00											
Test Speciemn No. >:	1					2						
Nominal Thickness (mils)	130					130						
Volume Collected (liters)	Zero Flow					Zero Flow						
Time (s)	24 hrs					24 hrs						
Specimen Permittivity @20°C (sec-1)	NO FLOW up to 24 hrs					NO FLOW up to 24 hrs						
Specimen Flow rate (GPM/ft2)	NO FLOW up to 24 hrs					NO FLOW up to 24 hrs						
Specimen Permeability (cm/s)												
Test Speciemn No. >:	3					4						
Nominal Thickness (mils)	130					130						
Volume Collected (liters)	Zero Flow					Zero Flow						
Time (s)	24 hrs					24 hrs						
Specimen Permittivity @20°C (sec-1)	NO FLOW up to 24 hrs					NO FLOW up to 24 hrs						
Specimen Flow rate (GPM/ft2)	NO FLOW up to 24 hrs					NO FLOW up to 24 hrs						
Specimen Permeability (cm/s)												
	TEMPERATURE CORRECTED VALUES					Permittivity (s-1) Flow rate (GPM/ft2) Permeability (cm/s)					No Flow No Flow up to 24 Hrs	

Nominal thickness provided by client.

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



GEOTEXTILE TEST RESULTS
TRI Client: New Pig

Material: New Pig 130 mil Well Pad Liner Nonwoven Geotextile Composite
Sample Identification: 9/04/12 10/10/10 #58001
TRI Log #: E2372-38-10

Test Date: 10/09/12

New Pig Part # MAT 7000

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.
	1	2	3	4	5	6	7	8	9	10		
Constant Head Permittivity (ASTM D 4491, 6 inch Constant Head; 2 in opening)												
Sample has been sealed at edge by RTV Sealant on Edge of specimen -Sealant had been cured for Three days before testing)												
Water Temp. (C):	20											
Correction Factor:	1.00											
Test Speciemn No. >:	1					2						
Thickness (mils)	130					130						
Volume Collected (liters)	Zero Flow					Zero Flow						
Time (s)	24 hrs					24 hrs						
Specimen Permittivity @20°C (sec-1)	NO FLOW					NO FLOW						
Specimen Flow rate (GPM/ft2)												
Specimen Permeability (cm/s)												
Test Speciemn No. >:	3					4						
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Specimen Permittivity @20°C (sec-1)	NO FLOW					NO FLOW						
Specimen Flow rate (GPM/ft2)												
Specimen Permeability (cm/s)												
	TEMPERATURE CORRECTED VALUES					Permittivity (s-1) Flow rate (GPM/ft2) Permeability (cm/s)					No Flow No Flow up to 24 Hrs	

Nominal thickness provided by client.

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