



Momentum Technologies, inc.

Date: September 27, 2010
MTi Project No.: AX08J0A
Phone No.: 216-292-5066
Fax No.:
Customer P.O.#: 615710

Technical Service Report

Accreditations



Cert No. 2711.01

ISO 17025



Associations



Prepared for:

Marcy Tyler

Customer:

Tremco Sealants
23150 Commerce Park Drive
Beachwood, OH 44121

Testing Laboratory:

Momentum Technologies, inc.
1507 Boettler Rd.
Uniontown, OH 44685

Date:

September 27, 2010

Samples:

1 – 5 gal pail of air barrier material labeled as ExoAir 230
Batch# 556695 produced in January 2010.

MTi Sample ID:

MTi-100574 received by Momentum
Technologies, inc. on July 1, 2010.

Project Number:

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1.0 Abstract

1.1 Analysis of one 5 gal pail of air barrier material in accordance with ASTM E 2178 for ABAA approval.

2.0 Laboratory Conditions

Lab Barometric Pressure, kPa	100.5
Air Flow Temperature, °C	24.4
Density of Air Through Flow Meter, kg/m ³	1.178

Conclusion: These laboratory conditions are used to convert all flow readings to STP in accordance with ASTM E 283 Section 12.1.

3.0 Calibration

The testing apparatus conforms to the calibration methods specified in ASTM E 2178 Section 8.1.2 and ASTM E 283 Section 9.

4.0 Preparation of Specimens

Five specimens were laid out at 40 wet mils 1.2m x 1.2m then once cured they were trimmed to 1m x 1m per ASTM E 2178 section 7.2.4, then attached as a free film to a wooden frame for support with a 1m x 1m opening. The testing apparatus was then attached to the wooden frame and tested per ASTM E 2178 section 8. **These specimens were not applied to any substrate; they were tested as a free film.**



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5.0 Results in Tabular Form

	ΔP , Pa						
	25	50	75	100	150	300	500
Std. Dev.	0.00102	0.00131	0.00170	0.00186	0.00255	0.00418	0.00777
Average Flow, L/(s*m ²)	0.00482	0.00531	0.00805	0.00987	0.01290	0.02211	0.03379
Average Flow, cfm/ft ²	0.00095	0.00105	0.00158	0.00194	0.00254	0.00435	0.00665
Upper Limit @ 95% Confidence, L/(s*m ²)	0.00608	0.00694	0.01017	0.01218	0.01607	0.02731	0.04345
Lower Limit @ 95% Confidence, L/(s*m ²)	0.00355	0.00368	0.00593	0.00755	0.00973	0.01691	0.02412
Requirement, L/(s*m ²), (cfm/ft ²), Max	N/A	N/A	0.02 (0.004)	N/A	N/A	N/A	N/A
Conclusion	N/A	N/A	Pass	N/A	N/A	N/A	N/A
*Material Permeance, P	0.00019	0.00011	0.00011	0.00010	0.00009	0.00007	0.00007

*P= Q/(ΔP *A), Where Q= Flow Rate, ΔP = Pressure Differential, A= Area

Note: The customer requested to also test at 500 Pa.

Conclusion: ExoAir 230 meets the requirements stated in section 4.1.5.2 of ABAA Process for Approval of Air Barrier Materials, Components and Assemblies.



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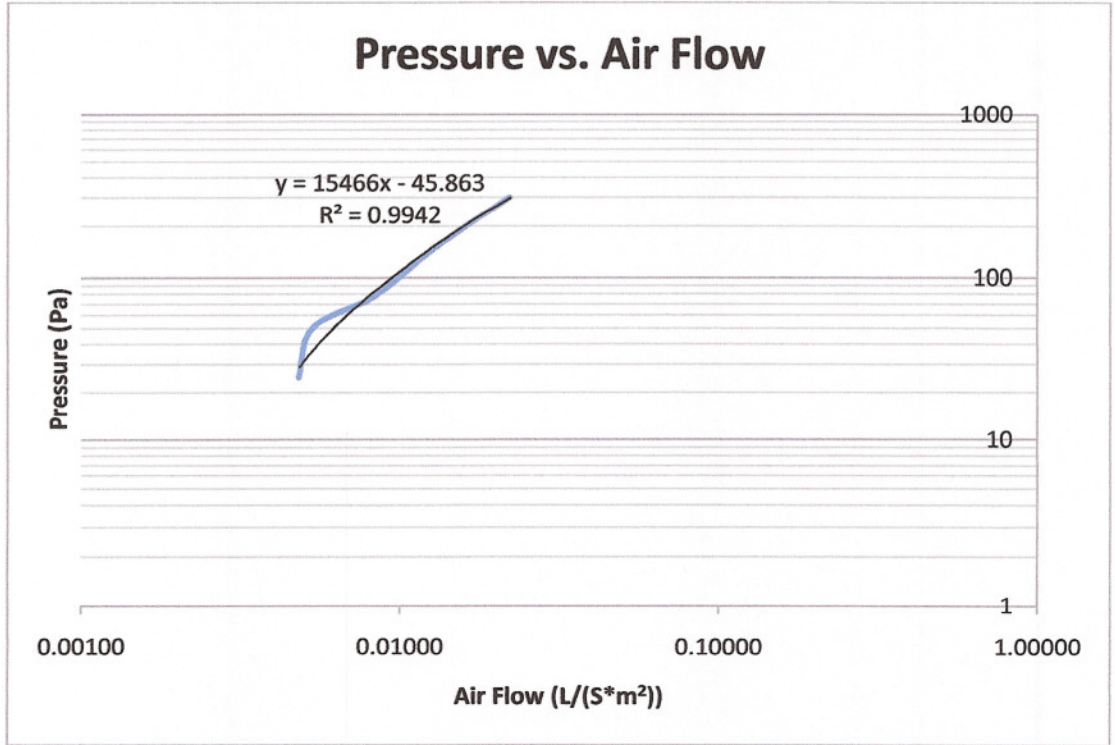
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6.0 Pressure vs. Air Flow in Graphic Form



Conclusion: The results above indicate the flow through the specimens with a unit of measurement of L/(s*m²) in accordance with ASTM E 2178 Section 8. The permeance is calculated in accordance with ASTM E 2178 Section 9.3. The log/log graph indicates an excellent correlation between flow and air pressure differential with an r² value greater than 0.99, conforming with ASTM E 2178 Section 10.1.3 and 10.1.3.1.



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If you should have any questions or require any additional information, please call us at 330/896-5900.

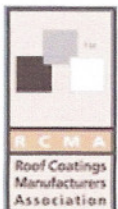
Tested by,

Rodney G. Armstrong
Laboratory Engineer

Verified by,

Cindy L. Campbell
Laboratory Manager

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