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PRODUCT EVALUATED: ALREADY SEALED 6" Round Metal Duct with
Interlocking Seam Seal
EVALUATION PROPERTY: Air Leakage

**Report of Testing Air Leakage in accordance with ASTM E283-04
Standard Test Method for Determining Rate of Air Leakage Through
Exterior Windows, Curtain Wall, and Doors Under Specified Pressure
Differences Across the Specimen.**

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Revision Summary

DATE	SECTION	SUMMARY
Oct 20, 2009	All	Original Report
April 21, 2010	Cover, 3, 6	Changed product name from EZ SEAL to ALREADY SEALED

2 Introduction

This report gives the results of the evaluation of the provided samples (Job #3192630). The test results described in this report are limited to the submitted items. On October 19, 2009 Intertek conducted tests on metal duct samples at the Middleton, Wisconsin facility. The tests conducted are listed in section 4. All measurements are with a 95% confidence level. Pressure measurements were taken with an inclined manometer (WHI #173) with an accuracy of +/- 0.01" w.c, and leakage rates were taken with an air mass flow meters (WHI #1092 and #985) with accuracies of +/- 1.5% of FS.

3 Test Samples

3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the client. Samples were not independently selected for testing. Samples were received at the Evaluation Center on October 16, 2009.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The samples evaluated are described by the manufacturer as ALREADY SEALED 6", 30 gauge, round metal duct. Intertek received the samples for testing in nominal 5 foot lengths. Each sample had a strip of gasket material along the interlocking edge of the formed seam (see photos). Two samples were tested. The first was a 5 foot section with sealed end caps, and the second was two 5 foot sections coupled together with sealed end caps. The coupled joint of the second sample was screwed together and sealed with duct tape in order to test the interlocking seam only.

4 Testing and Evaluation Methods

The samples were tested as outlined in ASTM E283-04 standard test method for *“Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen”*. Extraneous (background) air flow measurements were taken with the duct seam joint sealed. Total leakage measurements were taken the duct seam joint unsealed.

4.1. TEST STANDARD 1

ASTM E283-04 standard test method for *“Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen”*

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

One 5 Foot Section- Test Pressure of 1.57 PSF (0.30" w.c.)				
Total Leakage (Lpm)	Background Leakage (Lpm)	Sample Leakage (Lpm)	Sample Leakage (cfm)	Leakage per linear Foot (cfm)
4.89	0.24	4.65	0.16	0.032

Two 5 Foot Sections (10 foot total) Coupled Together- Test Pressure of 1.57 PSF (0.30" w.c.)				
Total Leakage (Lpm)	Background Leakage (Lpm)	Sample Leakage (Lpm)	Sample Leakage (cfm)	Leakage per linear Foot (cfm)
9.7	0.4	9.3	0.33	0.033


6 Conclusion

The Gray Metal South ALREADY SEALED 6" round metal duct described in this report, when using the test method of ASTM E 283-04 to evaluate the interlocking seam had an average air leakage rate of 0.033 cfm per linear foot at a test pressure of 1.57 PSF.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

INTERTEK

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7 Photos

