

I. Air, Water, Structural Testing

- **AAMA/WDMA/CSA 101/I.S.2/A440** - North American Fenestration Standard/ Specification for windows, doors, and skylights.
- **ASTM E283** - Determining Rate of Air Leakage through exterior Windows, Curtain Walls and Doors under specified uniform static air pressure difference
- **ASTM E330** - Structural Performance of exterior Windows, Doors, Skylights and Curtain Walls by uniform static air pressure
- **ASTM E331** - Water Penetration of exterior Windows, Doors, Skylights and Curtain Walls by uniform static air pressure
- **ASTM E547** - Water Penetration of exterior Windows, Doors, Skylights and Curtain Walls by uniform static air pressure





AAMA Gold Label Certification Program

II. Thermal Testing & Simulation

- **AAMA 1503** - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections
- **ASTM C1199** - Standard Test Method for Measuring the Steady-State Thermal Transmittance of Fenestration Systems Using Hot Box Methods
- **ASTM C1363** - Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus
- **NFRC 100 / 200 / 500** – NFRC testing for U-Value, SHGC and air infiltration
- **NFRC 102** – NFRC procedure for hot box thermal U-value testing

NFRC Thermal Certification Program

AAMA is our IA for this program

|  NFRC National Fenestration Rating Council CERTIFIED | Series 3000 Model 3023 C Thermally Improved Aluminum Tilt Double Hung Laminated Double Glazing – Low E |  Graham Architectural Products |
|---|--|--|
| ENERGY PERFORMANCE RATINGS | | |
| U-Factor (U.S./I-P) 0.54 | Solar Heat Gain Coefficient 0.33 | |
| ADDITIONAL PERFORMANCE RATINGS | | |
| Visible Transmittance 0.49 | Condensation Resistance 32 | |
| Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. Consult manufacturer's literature for other product performance information. www.nfrc.org | | |

III. Impact and Cycling Testing

- **AAMA 506** – Voluntary Specifications for Hurricane Impact and Cycle Testing of Fenestration Products
- **ASTM E 1886** - Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impact by Missile and Cyclic Pressure
- **ASTM E 1996** - Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Windborne Debris in Hurricane
- **TAS 201** – Florida code test for impact
- **TAS 202** - Florida code test for uniform static air pressure testing
- **TAS 203** – Florida code test for cyclic wind pressure load testing

Florida State-wide Product Approval System



IV. Blast Testing

- **AAMA 510** - Voluntary Guide Specification for Blast Hazard Mitigation for Fenestration Systems
- **ASTM F1642** - Standard Test Method for Glazing and Glazing Systems Subject to Airblast Loadings
- **UFC 4-010-01** - Minimum Antiterrorism Standards for Buildings
- **GSA TS-01** - Standard Test Method for Glazing and Glazing Systems Subject to Dynamic Overpressure Loadings

AAMA Security Fenestration Certification Program - Architectural Testing Inc. is the Administrator for this program

| Security Fenestration Rating and Certification Program | |
|--|--|
| Certification Authorization for: | |
| Company: | Graham Architectural Products Corporation |
| Corporate Address: | 1551 Mount Rose Avenue York, Pennsylvania 17403 |
| Plant Location: | 1551 Mount Rose Avenue York, Pennsylvania 17403 |
| Website: | www.grahamwindows.com |
| Phone: | 1-800-755-6274 |
| Facsimile: | 717-849-8148 |
| Participant Since: | March 2007 |

Note: The manufacturer posted on this Security Fenestration Rating and Certification Listing is a participant in good-standing in the Architectural Testing Security Fenestration Rating and Certification Program. The products listed have been certified by the manufacturer and verified by Architectural Testing during unannounced manufacturing site audits to meet the requirements of the certification program. This Security Fenestration Rating and Certification Listing is not an endorsement of the manufacturer or products listed herein.

V. Acoustical Performance Testing

- **AAAMA 1801** - Voluntary Specification for the Acoustical Rating of Windows, Doors and Glazed Wall Sections
- **ASTM E90** - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- **ASTM E1425** - Standard Practice for Determining the Acoustical Performance of Windows, Doors, Skylight, and Glazed Wall Systems

*Architectural Testing Inc.
Acoustical Certification Program*


| Acoustical Performance Certification Program | |
|--|--|
| Certification Authorization for: | |
| Company: | Graham Architectural Products Corporation |
| Corporate Address: | 1551 Mount Rose Avenue York, Pennsylvania 17403 |
| Plant Location: | 1221 Elm Street York, Pennsylvania 17403 |
| Website: | www.grahamwindows.com |
| Phone: | 1-800-755-6274 |
| Facsimile: | 717-849-8148 |
| Participant Since: | June 2004 |

Note: The manufacturer posted on this Acoustical Performance Certification Listing is a participant in good-standing in the Architectural Testing Acoustical Performance Certification Program. The products listed have been certified by the manufacturer and verified by Architectural Testing during unannounced manufacturing site audits to meet the requirements of the certification program. This Acoustical Performance Certification Listing is not an endorsement of the manufacturer or products listed herein.

VI. Insulating Glass

- **ASTM E2188** - Standard Test Method for Insulating Glass Unit Performance
- **ASTM E2189** - Standard Test Method for Testing Resistance to Fogging in Insulating Glass Units
- **ASTM E2190** - Standard Specification for Insulating Glass Unit Performance and Evaluation

*IGCC/IGMA
Insulating Glass Certification Program*

| INSULATING GLASS | | Administrative Office | | IGMA | |
|--|--|------------------------------------|--|------------------------------------|--|
| IGCC | | 100 West Main Street, P.O. Box 730 | | 100 West Main Street, P.O. Box 730 | |
| CERTIFICATION COUNCIL | | SACKETT HARBOR, NY 13685 | | SACKETT HARBOR, NY 13685 | |
| | | Phone: (315) 646-2234 | | Phone: (315) 646-2234 | |
| | | Fax: (315) 646-2237 | | Fax: (315) 646-2237 | |
| | | E-mail: staff@amcert.com | | E-mail: staff@amcert.com | |
| | | | | October 25, 2010 | |
| | | | | Certification Number: 1428 | |
| | | | | F10 | |
| NOTICE OF PRODUCT COMPLIANCE | | | | | |
| LICENSEE: Mr. Bob Democourt Graham Architectural Products 1551 Mt. Rose Ave. York, PA 17403-2909 | | | | | |
| PLANT: York, PA | | | | | |
| PRODUCT CERTIFIED: IGCC/IGMA 1428 | | | | | |
| TEST METHOD: ASTM E2188, E2189 & E2190 | | | | | |
| DATE FABRICATED: 12/18/2009 | | | | | |
| TEST SIZE: 14 x 20-inches | | | | | |
| GLASS TYPE: UCI 3/16-inch clear | | | | | |
| SPACER SIZE & MATERIAL: AA 1/4 inch Allmetal | | | | | |
| FRAME CONSTRUCTION: BC45J Bent corners; Steel Joiner by Allmetal | | | | | |
| DESICCANT: MS Phosphor 551 Grace Division 1 long & 1 short side filled | | | | | |
| PRIMARY SEALANT: PR, PRS - HHSB, Adise | | | | | |
| SECONDARY SEALANT: SI, 3-0117, Dow Corning | | | | | |
| MUNTIN BARS OR GRILLS: NA | | | | | |
| OTHER COMMENTS: | | | | | |
| CONCLUSION | | | | | |
| After reviewing the enclosed report, IGCC/IGMA has considered the results to be in compliance with ASTM E2188, E2189 and E2190 requirements. | | | | | |
| Authorization by:  | | | | | |
| John G. Kent Administrative Manager IGCC/IGMA Certification Program | | | | | |
| CC: 3 ID-001009 | | | | | |