



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908**

NOTICE OF ACCEPTANCE (NOA)

**Cardinal LG.
250 Griffin Street East
Amery, WI 54001**

SCOPE: This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Laminated Glass Cardinal Sea-Storm Type B.

APPROVAL DOCUMENT: Drawing No.1, Sheets 1 of 1, titled "Cardinal Sea-Storm Type B" dated 10/15/99, with last revision on 01/10/01 prepared by Cardinal LG. signed and sealed by W. M. Meyers, PE. bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: None

LABELING: Glass laminated under this Product Approval shall be permanently marked in a corner of the glass with: "DCA. C. DGP" standing for "Dade County Approved Cardinal DGP". This mark shall appear in the same area of the lite as the appropriate glass label.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA # 01-0206.22 and consists of this page 1 as well as approval document mentioned above. The submitted documentation was reviewed by **Candido F. Font PE.**

4/18/3



**NOA No: 03-0417.01
Expiration Date: December 30, 2007
Approval Date: May 15, 2003
Page 1**

Cardinal LG.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

(For File ONLY. Not part of NOA)

A DRAWING:

1. Drawing No. 1 of sheet 1 of 1, prepared by Cardinal DGP, issued on 10/15/99 with last revision on 01/10/01, signed and sealed by W. M. Meyers, PE.

B TEST REPORTS:

Laboratory Report	Test	Date	Signature
1. ETL 567854	ASTM D 635	08/26/96	D. K. Tucker, PE
2. ETL 567850	ASTM E 84	08/26/96	D. K. Tucker, PE
3. ETC 567925	ASTM D 1929	08/26/96	D. K. Tucker, PE.
4. SGS 120046-R	ASTM D 638	01/31/97	D. H. Mangnall, PE.
5. SGS 509620-R	ASTM G26	01/30/97	D. H. Mangnall, PE.
6. ETL 567923	ASTM D 1929	08/26/96	D. K. Tucker, PE.
7. ETL 567852	ASTM D 635	08/26/96	D. K. Tucker, PE.

C CALCULATIONS:

N/A

D MATERIAL CERTIFICATION:

1. NOA No. 96-0904.07, issued to E. I. DuPont DeNemours, approved on 04/24/97, expiring on 04/24/00.

E STATEMENTS:

1. Letter of Authorization by Dupont – Glass Laminating Products on 11/08/99, signed and sealed by C. A. Smith.
2. Letter of Code Compliance issued by R. E. Fisher & Associates, Inc. on 12/02/99/99, signed and sealed by R. E. Fisher, PE.
3. No change letter issued by Cardinal LG dated 03/28/03 and signed by E. Knutt.



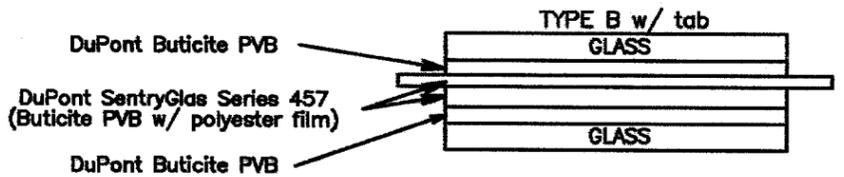
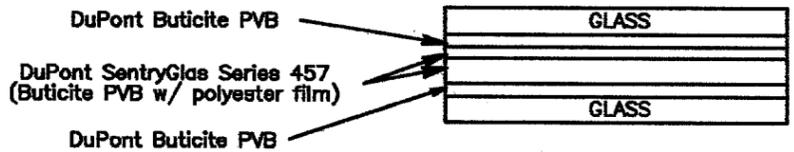
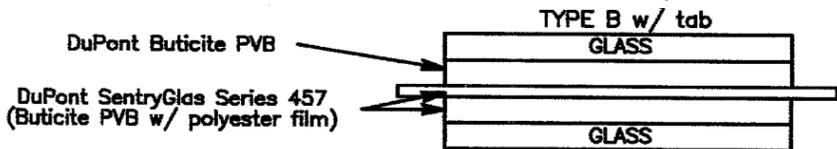
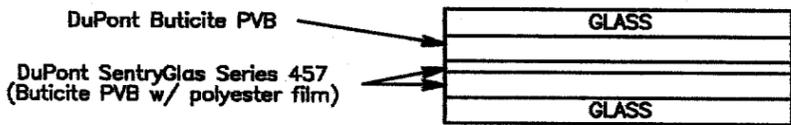
Candido F. Font PE.
Sr. Product Control Examiner
NOA No 03-0417.01
Expiration Date: December 30, 2007
Approval Date: May 15, 2003

Cardinal Sea-Storm™ TYPE B

DESCRIPTION

This product has a layer of PET film that is laminated between two pieces of glass using PVB interlayer material.

SECTIONS



MATERIAL CHARACTERISTICS

DuPont SentryGlas 457 Glass/Plastic Laminated Material

DuPont Butacite Polyvinyl Butryal

Designation	Test	Properties
Self Ignition Temperature	ASTM D1929	671 degrees F
Flash Ignition Temperature	ASTM D1929	698 dgrees F
Flame Spread Index	ASTM E84	95
Smoke Developed Index	ASTM E84	165
Average Burning Rate	ASTM D635	0.75 in/min
Average Extent of Burning	ASTM D635	2.95 inches
Average Time of Burning	ASTM D635	3.93 min.

Designation	Test	Properties				
Flash Ignition Temperature	ASTM D1929	698 degrees F				
Self Ignition Temperature	ASTM D1929	716 dgrees F				
Average Extent of Burning	ASTM D635	0.57 inches				
Average Time of Burning	ASTM D635	0.86 min.				
Ultimate Tensile Strength	ASTM D638	* Weathering				
*Weathering Per Section 3505.2 of the South Florida Building Code		<table border="1"> <tr> <td>Before</td> <td>After</td> </tr> <tr> <td>30,200 psi</td> <td>29,900 psi</td> </tr> </table>	Before	After	30,200 psi	29,900 psi
Before	After					
30,200 psi	29,900 psi					

NOTE: THIS APPROVAL DOES NOT INCLUDE AN EVALUATION OF STRUCTURAL PERFORMANCE OF THIS COMPONENT. TEST REPORTS AND OTHER DOCUMENTS SHOULD BE SUBMITTED TO MIAMI-DADE COUNTY PRODUCT CONTROL, SHOWING THAT THE SYSTEM USING THIS LAMINATE GLASS WILL RESIST THE LOADS ACCORDING TO CHAPTER 16 OF THE FBC 2001 IN ORDER TO ISSUE AN SPECIFIC PRODUCT APPROVAL FOR THE SYSTEM.

For Office Use
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE DATE <u>04-05-2001</u> BY <u>[Signature]</u> PRODUCT CONTROL DIVISION BUILDING CODE COMPLIANCE OFFICE ACCEPTANCE NO. <u>01-0206.02</u>

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 03-0417.01
Expiration Date 12/30/07
By [Signature]
Miami Dade Product Control
Division

CARDINAL LG 250 Griffin Street East Amery, WI 54001		
Cardinal Sea-Storm™ TYPE B		
Drawing Number: 1	Sheet Number: 1	Drawing Date: 10/15/99 Revision Date: 1/10/01
 FLA. 18755 STRUCTURAL Date: <u>01/26/01</u>		Registered P.E. #
Engineer	Discipline	Registered P.E. #