TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION Effective Date: July 1, 2012
DR-290 Reevaluation Date: **March 1, 2015**

The following product has been evaluated for compliance with the wind loads specified in the ***International Residential Code (IRC)*** *and the* ***International Building Code (IBC)****.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Diamond GEM 130, 140, 150 MPH Series Outswing Hinged Steel Doors, Impact Resistant, manufactured by

Diamond Door Products
52294 Highway 290 West
Hempstead, Texas 77445
Telephone: (979) 826-0238
www.diamonddoorltd.com

General Description:

System	Description	Design Pressure Rating
1	Diamond GEM 130 MPH Series Outswing Steel Door; X	+27.2/-34.3
2	Diamond GEM 140 MPH Series Outswing Steel Door; X	+44.2/-55.7
3	Diamond GEM 150 MPH Series Outswing Steel Door; X	+50.7/-64.0

Product Dimensions:

System	Overall Size	Operating Panel Size	Panel Daylight Opening Size
1	52 7/8" x 86 1/4"	46 7/8" x 83 1/8"	N/A
2	40 3/4" x 86 1/4"	35 7/8" x 83 1/4"	N/A
3	40 3/4" x 86 1/4"	35 7/8" x 83 1/4"	N/A

Hardware:

- Grade 2 lever lock (Systems 1, 2, 3); S. Parker Hardware Manufacturing Corp; Part No. SL7160.
- Steel strike plate for lever lock (Systems 1, 2, 3); Secured to the door frame with two (2) Philip head No. 12/24 x 1/2" machine thread screws.
- Single cylinder, heavy duty deadbolt (Systems 2, 3); S. Parker Hardware Manufacturing Corp; Part No. 92160.
- Steel strike plate for deadbolt (Systems 1, 2, 3); Secured to the door frame with two (2) Philip head No. 12/24 x 1/2" machine thread screws.

Hardware (Continued):

- 1" x ½" x 8" steel surface slide bolts (System 3); Two (2) required; Located on the door panel interior faces, top and bottom.
- Strike plates for surface bolts; One (1) required at the head and the sill; Secured with two (2) 5/16" x 1" bolts/nuts at the head and two (2) No. 10 x 1¾" screws at the sill.
- Triple barrel ball bearing hinges (Systems 1, 2, 3); Three (3) required; Secured to the door panel with four (4) No. 12/24 x ½" machine thread screws and to the door frame with No. 12/24 x ½" machine thread screws.

Product Identification (Certification Agency Label on Door):

System		
1-3	Certification Agency	N/A
	Manufacturer's Name or Code Name	Diamond "GEM" Series
	Product Name	Outswing Steel Entry Door
	Test Standards	TAS-201, TAS-202, TAS-203

Impact Resistance:

Impact Resistant	Requirement
Yes	These products satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I** and **Seaward zone**. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

Installation:

System 1: Wall framing shall be steel C-channels. The door frame side jambs shall be secured to the wall framing along the frame interior with eight (8) ¼" x 1⅛", self-tapping, hex-head sheet metal screws located approximately 1 inch from the sill, and spaced approximately 12 inches on center thereafter. The door frame side jambs shall be secured to the wall framing along the frame exterior with eight (8) No. 12 x 1⅛", self-tapping, hex-head sheet metal screws and integral neoprene washers located approximately 1 inch from the sill, and spaced approximately 12 inches on center thereafter. The door frame head shall be secured to the wall framing along the frame interior with five (5) No. 10 x 1", self-tapping, hex-head sheet metal screws located approximately 1 inch from the jamb, and approximately 12 inches on center thereafter. The door frame head shall be secured to the wall framing along the frame exterior with five (5) No. 12 x 1⅛", self-tapping, hex-head sheet metal screws and integral neoprene washers located approximately 1 inch from the jamb, and spaced approximately 10 inches on center thereafter. The aluminum threshold shall be secured to the concrete slab with five (5) minimum No. 10 x 1¾", screws spaced approximately 10 inches on center.

Systems 2 and 3: Wall framing shall be steel C-channels. The door frame side jambs shall be secured to the wall framing along the frame interior with ten (10) ¼" x 1⅛", self-tapping, hex-head sheet metal screws located at 1, 5, 8½, 20, 32, 44, 56, 68, 80, and 90½ inches from the sill. The door frame side jambs shall be secured to the wall framing along the frame exterior with ten (10) No. 12 x 1⅛", self-tapping, hex-head sheet metal screws and integral neoprene washers located at 1, 5, 8½, 20, 32, 44, 56, 68, 80, and 90½ inches from the sill. The door frame head shall be secured to the wall framing along the frame interior with four (4) ¼" x 1⅛", self-tapping, hex-head sheet metal screws located 1 inch and 14 inches from each side jamb. The door frame head shall be secured to the wall framing along the frame exterior with four (4) ¼" x 1⅛", self-tapping, hex-head sheet metal

screws located 1 inch and 14 inches from each side jamb. The aluminum threshold shall be secured to the concrete slab with three (3) minimum No. 10 x 1 $\frac{3}{4}$ " screws.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC) and the Texas Revisions.