



# Product Evaluation

DR472 | 1215

Engineering Services Program

*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.*

*For more information, contact TDI Engineering Services Program at (800) 248-6032.*

**Evaluation ID:** DR-472

**Effective Date:** December 1, 2015

**Re-evaluation Date:** December 2019

**Product Name:** 8'-0" Opaque Commercial Steel Side Hinged Doors, Outswing, Singles and Doubles, Impact Resistant; 7'-0" Opaque Commercial Steel Side Hinged Doors, Inswing & Outswing, Singles and Doubles, Impact Resistant

**Manufacturer:** Cal-Royal Products, Inc.  
6606 Flotilla Street  
City of Commerce, CA 90040  
(323) 888-6601

### General Description:

System	Description	Label Rating	Drawing Number
1	4'-0" x 8'-0" Opaque Steel Single Door; X (161 Latch & Deadbolt) (Pioneer SL/CSL & T300 Series)	Outswing +80/-80 psf	TX-4483
2	3'-0" x 8'-0" Opaque Steel Single Door; X (Panic Bar Exit Device w/Vertical Rods) (7700-V Series)	Outswing +70/-70 psf	TX-4483
3	4'-0" x 8'-0" Opaque Steel Single Door; X (Panic Bar Exit Device w/Vertical Rods) (7700-V Series)	Outswing +50/-50 psf	TX-4483
4	3'-0" x 7'-0" Opaque Steel Single Door; X (161 Latch & Deadbolt) (Pioneer SL/CSL Series)	Inswing +55/-55 psf Outswing +55/-55 psf	TX-4484

**General Description (Continued):**

System	Description	Label Rating	Drawing Number
5	3'-0" x 7'-0" Opaque Steel Single Door; X (161 Latch & Deadbolt) (Pioneer SL/CSL & T300 Series)	Inswing +55/-55 psf Outswing +55/-55 psf	TX-4484
6	3'-0" x 7'-0" Opaque Steel Single Door; X (161 Latch & Deadbolt) (Genesys Series)	Inswing +70/-70 psf Outswing +70/-70 psf	TX-4484
7	3'-0" x 7'-0" Opaque Steel Single Door; X (Panic Bar Exit Device) (5500 Series)	Outswing +50/-50 psf	TX-4484
8	3'-0" x 7'-0" Opaque Steel Single Door; X (Panic Bar Exit Device) (7700 Series)	Outswing +70/-70 psf	TX-4484
9	3'-0" x 7'-0" Opaque Steel Single Door; X (86E Mortise Lock) (M Series)	Inswing +80/-80 psf Outswing +80/-80 psf	TX-4484
10	6'-0" x 7'-0" Opaque Steel Single Door; XX (161 Latch & Deadbolt) (Pioneer SL/CSL & T300 Series)	Inswing +55/-55 psf Outswing +55/-55 psf	TX-4485
11	6'-0" x 7'-0" Opaque Steel Single Door; XX (Panic Bar Exit Device w/Vertical Rods) (7700-V Series)	Outswing +70/-70 psf	TX-4485
12	8'-0" x 8'-0" Opaque Steel Single Door; XX (Panic Bar Exit Device w/Vertical Rods) (7700-V Series)	Outswing +50/-50 psf	TX-4486

**Product Dimensions:**

System	Overall Size	Panel Size
1	52" x 98"	41-3/4" x 95"
2	40" x 98"	41-3/4" x 95"
3	52" x 98"	41-3/4" x 95"
4, 5, 6, 7, 8, 9	40" x 86" w/2" Head 40" x 86" w/4" Head	35-3/4" x 83-1/8"
10, 11	76" x 86" w/2" Head 76" x 86" w/4" Head	35-3/4" x 83-1/8"
12	100" x 98"	47-3/4" x 95-1/4"

**Components and Hardware:**

System	Component	Quantity	Attachment Method
1-12	4" Butt Hinges	3 (6'-8" doors) 4 (8'-0" doors)	Install hardware in accordance with Cal-Royal Products, Inc. drawings:  TX-4483, dated September 30, 2014 TX-4484, dated September 30, 2014 TX-4485, dated September 30, 2014 TX-4486, dated September 30, 2014  Signed and sealed by Lyndon F. Schmidt, P.E. on October 1, 2014
1	Pioneer SL/CSL Series Latch & T300 Series Deadbolt	1 each	
2, 3, 11, 12	7700-V Series Panic Bar Exit Device w/ Vertical Rods	1 Each	
4	Pioneer SL/CSL Series Latch	1 Each	
5, 10	Pioneer SL/CSL Series Latch & T300 Series Deadbolt	1 Each	
6	Genesys Series Latch	1 Each	
7	5500 Series Panic Bar Exit Device	1 Each	
8	7700 Series Panic Bar Exit Device	1 Each	
9	M Series 86E Mortise Lock	1 Each	

**Product Identification (Manufacturer Label on Door):**

System		
1, 2, 3	Certification Agency	Self-labeled by manufacturer
	Manufacturer's Name or Code Name	Cal-Royal Products, Inc. City of Commerce, CA
	Product Name	DKS Series 1800 Steel Commercial, Outswing, Impact Resistant Door Panel, Singles
	Drawing	TX-4483
	Test Standards	ASTM E 330-02, ASTM E 1886-05, ASTM E 1995-06 TAS-201, TAS 202, TAS 203
4, 5, 6, 7, 8, 9	Certification Agency	Self-labeled by manufacturer
	Manufacturer's Name or Code Name	Cal-Royal Products, Inc. City of Commerce, CA
	Product Name	DKS Series 1800 Steel Commercial, Inswing/Outswing, Impact Resistant Door Panel, Singles
	Drawing	TX-4484
	Test Standards	ASTM E 330-02, ASTM E 1886-05, ASTM E 1995-06 TAS-201, TAS 202, TAS 203

**Product Identification (Manufacturer Label on Door) - Continued:**

System		
10, 11, 12	Certification Agency	Self-labeled by manufacturer
	Manufacturer's Name or Code Name	Cal-Royal Products, Inc. City of Commerce, CA
	Product Name	DKS Series 1800 Steel Commercial, Inswing/Outswing, Impact Resistant Door Panel, Doubles
	Drawing	TX-4485, TX-4486
	Test Standards	ASTM E 330-02, ASTM E 1886-05, ASTM E 1995-06 TAS-201, TAS 202, TAS 203

**Impact Resistance:**

System	Impact Resistant	Requirement
1-12	Yes	These products satisfy TDI's criteria for protection from windborne debris in the Inland I and Seaward zone. Install the assemblies at a height on the structure that does not exceed the design pressure rating for the assemblies.

**Installation:**

System		
1-12	Type of Installation	Install and anchor in accordance with Cal-Royal Products, Inc. drawings:  TX-4483, dated September 30, 2014 TX-4484, dated September 30, 2014 TX-4485, dated September 30, 2014 TX-4486, dated September 30, 2014  Signed and sealed by Lyndon F. Schmidt, P.E. on October 1, 2014.
	Wall Framing	
	Fasteners	
	Fastener Embedment	
	Fastener Location/Spacing	

**Note:** Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.