

John E. Scates, Professional Engineer

September 25, 2023

Raynor Garage Door
1101 East River Rd.
Dixon, IL 61021

Re: FL 20887
Evaluation Report for DuraCoil 22ga Service Door

To Whom It May Concern:

At the request of Raynor Garage Door, I have reviewed the drawing and test listed below. The test was conducted by Underwriters Laboratories according to TAS 201/202/203-94 test procedures. The pressures listed on the drawing is the direct result of this tests or conservative engineering rational analysis from the actual tests, except that no extrapolation of impact pressures was used. I have concluded that the construction shown on this drawing complies with the structural requirements of the 8th Edition (2023) Florida Building Code. I certify that I meet the requirements of "independence" as detailed in Florida Statutes.

Testing included all aspects of the TAS process, including:

1. Static pressure testing.
2. Impact and cyclic testing.
3. Meeting the deflection recovery requirements.
4. Meeting the forced entry requirement.
5. The steel slats of the doors were tensile tested. This testing was included in the UL test report.

Additional HVHZ requirements were met:

1. The door curtain is made of 22-gauge steel, exceeding the minimum 24-gauge required.
2. The door curtain is made with actual G90 galvanizing.
3. The insulation used in the Model "IF" insulated slats has been approved separately under Miami-Dade NOA 23-0207.02.

Note: This product is almost identical to Miami/Dade NOA 17-1026.10. The NOA door used 20-gauge slats for the curtain. Raynor has now tested 22-gauge slats as well, which is this product.

Drawings

Test Report

Test Report

Testing using **22ga slats**

UL Report No: "SV30629-20160610-Report"
also designated as Miami-Dade Report No: "UL16001"

This test report was dated 6/10/2016, with a 10-year retention period.
The test report was signed/sealed by a Florida P.E.

Test Facility

The test facility was located at:

UL LLC
750 Anthony Trail
Northbrook, IL 60062

Prior Testing of 20ga doors, cited in NOA 17-1026.10

ATI C1888.01-550-18 (TAS202)
HTL G493-0202-08 (TAS 202 + 201/203)
CTL 0313Q (ASTM E8 tensile test)

Calculations

The tested jamb attachment was confirmed via calculations:

The fastener loads to attach the guide to the building were computed for comparison to the tested door configuration. For attachment to a concrete wall, the Kwik-Bolt 3 (and TZ2) anchor limits were determined from ACI 318 Chapter 17. The minimum spacing of the wall fasteners were chosen as the least result from the Test and the Calculations.

Installation Instructions

Anchorage Requirements:

The door drawing includes means to attach the door to Steel or Concrete building structure as detailed on Sheet 3.

This Evaluation Report does not address design of the wall/jambs themselves, but provides the anticipated jamb loads that will be generated by this product, Fx and Fy, also tabulated on Sheet 3 of the drawing.

Model Descriptions

This Evaluation is for "DuraCoil" Rolling Service Doors by Raynor in two models:

All models use 22-gauge (minimum) slats for the exterior surface.

Model 'FF' uses an uninsulated flat slat curtain.

Model 'IF' uses an insulated flat slat for the curtain. Model 'IF' is provided with an additional back cover to protect the insulation that is 24 gauge.

Additional Limitations

The drawing cited above is an explicit part of this evaluation report. The text of this report does not attempt to address all design details but relies upon the illustrations and text of these drawings and instructions as well.

Each door should be chosen based on the "psf" requirement determined for a specific installation or locale.

The maximum opening width approved with this report is 16'.

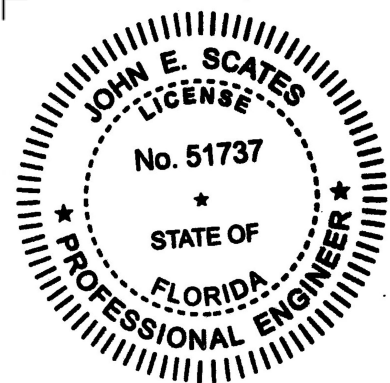
The maximum door height approved with this report is 30' nominal.

Door width may not exceed the tested door width. However, doors narrower than tested width are allowed, but carry the same psf as the tested product.

The rated pressures may not be achieved unless the door is held closed during the wind event. Both guides must be engaged with a lock if manually operated, or alternately an electric operator attached to the door prior to the wind event.

The user of this product is reminded that rolling steel doors can generate substantial catenary forces at the jambs ("Fx"). The building jambs must be designed to withstand these loads in combinations of Fx with Fy(+), and Fx with Fy(-) shown on sheet 3 of the drawing.

These doors have been evaluated for use in the Florida High Velocity Hurricane Zone (HVHZ).



Digitally signed by John E Scates
Date: 2023.09.25 10:16:19 -05'00'

John E. Scates, P.E.
Florida PE # 51737

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