

RoyOMartin TuffStrand<sup>®</sup> 7/16-inch OSB  
Roy O. Martin Lumber Company, L.L.C.

PR-N129  
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Product: TuffStrand<sup>®</sup> 7/16-inch OSB  
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1. Basis of the product report:
  - 2009 and 2006 International Building Code: Section 104.11 Alternative Materials and Section 2305 General Design Requirements for Lateral-Force-Resisting Systems
  - DOC PS 2-04 Performance Standard for Wood-Based Structural-Use Panels
  - APA Report T2009P-71 and other qualification data
2. Product description:

RoyOMartin TuffStrand<sup>®</sup> 7/16-inch OSB is an enhanced APA Rated Sheathing meeting a Span Rating of 24/16 in accordance with PS 2, and is made with strands of southern pine in accordance with the in-plant manufacturing standard approved by APA. The scope of this report covers 7/16-inch thick RoyOMartin TuffStrand<sup>®</sup> OSB manufactured in 4-foot wide by 8-, 9-, and 10-ft long. An example trademark is shown in Figure 1.
3. Design properties:

Allowable shear values for RoyOMartin TuffStrand<sup>®</sup> 7/16-inch OSB sheathing are listed in Table 1. The tabulated racking values in Table 1 are the higher of 3/8-inch APA Rated Sheathing Structural I and 7/16-inch APA Rated Sheathing.
4. Product installation:

RoyOMartin TuffStrand<sup>®</sup> 7/16-inch OSB shall be installed in accordance with recommendations provided by the manufacturer and APA Design & Construction Guide: *Engineered Wood Construction Guide*, Form E30 ([www.apawood.org/publications](http://www.apawood.org/publications)). The maximum span shall be in accordance with the Span Rating shown in the trademark.
5. Fire-resistant construction:

Wood structural panels that are not fire-treated have been shown to meet a Class III (or C) category for flame spread. Where otherwise specified, fire-resistant construction shall be in accordance with the recommendations for 7/16-inch wood structural panels in APA Product Guide: *Fire-Rated Systems*, Form W305 ([www.apawood.org/publications](http://www.apawood.org/publications)).
6. Limitations:
  - a) RoyOMartin TuffStrand<sup>®</sup> 7/16-inch OSB sheathing shall be permitted for design with the allowable shear for 7/16-inch Rated Sheathing and 3/8-inch Rated Sheathing Structural I, whichever is higher. RoyOMartin TuffStrand<sup>®</sup> 7/16-inch OSB is produced at RoyOMartin facility at Oakdale, LA under a quality assurance program audited by APA.
  - b) This report is subject to re-examination in one year.
7. Identification:

RoyOMartin TuffStrand<sup>®</sup> 7/16-inch OSB described in this report is identified by a label bearing the manufacturer's name (RoyOMartin/Martco) and/or trademark, the APA assigned plant number (511), the product thickness, the Span Rating, the Exposure Rating, the APA logo, the report number PR-N129, and a means of identifying the date of manufacture.

Table 1. Allowable Shear (plf) for RoyOMartin TuffStrand® 7/16-inch OSB Sheathing Shear Walls with Framing of Douglas Fir-Larch or Southern Pine<sup>(a)</sup> for Wind or Seismic Loading<sup>(b,c,g,h,i,j)</sup>

Minimum Nominal Panel Thickness (in.)	Minimum Nail Penetration in Framing (in.)	Panels Applied Directly to Framing				Panels Applied over 1/2-inch or 5/8-inch Gypsum Sheathing					
		Nail Size (common or galvanized box)	Nail Spacing at Panel Edges (in.)				Nail Size (common or galvanized box)	Nail Spacing at Panel Edges (in.)			
			6	4	3	2 <sup>(e)</sup>		6	4	3	2 <sup>(e)</sup>
7/16	1-3/8	8d (2-1/2" x 0.131")	240 <sup>(d)</sup>	360 <sup>(d)</sup>	460 <sup>(d)</sup>	610 <sup>(d)</sup>	10d (3" x 0.148")	280	430	550 <sup>(f)</sup>	730

For **SI**: 1 inch = 25.4 mm, 1 plf = 14.6 N/m.

- (a) For framing of other species: (1) Find specific gravity for species of lumber in AF&PA National Design Specification (NDS), (2) Find shear value from table above for nail size for actual grade. (3) Multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1 - (0.5 - SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.
- (b) The tabulated racking values are the higher of 3/8-inch APA Rated Sheathing Structural I and 7/16-inch APA Rated Sheathing.
- (c) Panel edges backed with 2 inch nominal or wider framing. Install panels either horizontally or vertically. Space fasteners maximum 6 inches o.c. along intermediate framing members for panels installed on studs spaced 24 inches o.c. For other stud spacings, space nails 12 inches o.c. on intermediate supports.
- (d) Allowable shear values are permitted to be increased to 280, 430, 550, and 730 plf, respectively, for 6-inch, 4-inch, 3-inch, and 2-inch nailing provided (1) studs are spaced a maximum of 16 inches on center, or (2) panels are applied with long dimensions across studs.
- (e) Framing at adjoining panel edges shall be 3-inch nominal or wider, and nails shall be staggered where nails are spaced 2 inches on center.
- (f) Framing at adjoining panel edges shall be 3-inch nominal or wider, and nails shall be staggered where both the following conditions are met: (1) 10d (3 inches x 0.148 inch) nails having penetration into framing of more than 1-1/2 inches and (2) nails are spaced 3 inches on center.
- (g) Where panels applied on both faces of a wall and nail spacing is less than 6 inches o.c. on either side, panel joints shall be offset to fall on different framing members, or framing shall be 3-inch nominal or thicker at adjoining panel edges and nails on each side shall be staggered.
- (h) In Seismic Design Category D, E or F, where shear design values exceed 350 pounds per linear foot, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with IBC Section 2306.1 to transfer the design shear values between framing members. Wood structural panel joint and sill plate nailing shall be staggered in all cases. See IBC Section 2305.3.11 for sill plate size and anchorage requirements.
- (i) Galvanized nails shall be hot dipped or tumbled.
- (j) For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.



Figure 1. Typical trademark

APA – *The Engineered Wood Association* is an accredited certification body under ISO 65 by Standards Council of Canada (SCC) and an accredited inspection agency by the International Code Council (ICC) International Accreditation Service (IAS) under ISO/IEC 17020. APA is also an accredited testing organization recognized by IAS and SCC under ISO/IEC 17025. APA is a recognized testing laboratory by Miami-Dade County, and a Product Testing Laboratory, Product Quality Assurance Entity, and Product Validation Entity by the Florida Department of Community Affairs (DCA).

**APA – THE ENGINEERED WOOD ASSOCIATION  
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