



Evaluation Listing CCMC 13418-L AS-18-HS Truss Plate

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1. Evaluation

The product conforms to CSA S347-14, “Method of test for evaluation of truss plates used in lumber joints,” and CSA O86-14, “Engineering Design in Wood.” CSA S347 test results are shown in the following tables.

Table 1.1 Ultimate Tensile Strength of the Plate Material

Grade of Steel	Uncoated Nominal Plate Thickness (mm)	Mean Ultimate Tensile Strength (MPa)	Correction Factor
HSLA I410	1.184	523	0.902

Table 1.2 Lateral Resistance of the Teeth (Hydraulic Press)

Direction of Load	Lateral Resistance (MPa/Plate) Specific Gravity (SG) = 0.42		Lateral Resistance (MPa/Plate) Specific Gravity (SG) = 0.47	
	Ultimate Lateral Resistance, n_u	Lateral Slip Resistance, n_s	Ultimate Lateral Resistance, n_u	Lateral Slip Resistance, n_s
Load parallel to grain, plate length parallel to load	2.37	1.97	2.48	2.86
Load parallel to grain, plate length perpendicular to load	2.11	1.80	2.60	2.95
Load perpendicular to grain, plate length parallel to load	1.52	1.36	1.88	2.08
Load perpendicular to grain, plate length perpendicular to load	1.96	1.88	2.03	2.15

Table 1.3 Roller Press Modification Factors

Roller diameter	457 mm (18 in.)	
Roller feed speed	37.3 m/min (122.5 ft./min)	
Ultimate lateral resistance modification factor, K_{pu}	0.95 (SG = 0.42)	0.80 (SG = 0.47)
Slip modification factor, K_{ps}	0.94 (SG = 0.42)	0.69 (SG = 0.47)

Table 1.4 Tensile Strength of Plate

Direction of Load	Unit	Tensile Resistance, t_p
Load parallel to plate length	N/mm/plate	267
Load perpendicular to plate length	N/mm/plate	264

Table 1.5 Shear Strength of Plate

Angle (Degree)	Shear Resistance, v_p (N/mm/Plate)	Slots in Plate Axis
0, 180	161	⊥
30T	185	∥
30C	139	⊥
60T	221	∥
60C	121	⊥
90	143	∥
120T	165	⊥
120C	117	∥
150T	203	⊥
150C	135	∥

Legend for Table 1.5:

- ⊥ Slots perpendicular to the plate, long dimension
- ∥ Slots parallel to the plate, long dimension
- C Compression
- T Tension

2. Description

The product is manufactured from an 18-gauge steel sheet that meets the minimum strength and yield requirements of ASTM A 653/A 653-M, “Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process” Grade HSLA I410 steel, and galvanized with G90 zinc coating as per ASTM A 924/A 924M, “Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.” The product has an uncoated nominal thickness of 1.184 mm and is stamped with 0.0124 teeth per square mm. The teeth are approximately 9.5 mm in length.

3. Standard and Regulatory Information

See the Annex, appended to this Listing, which summarizes the product standard.

This/these product(s) was/were evaluated to the product standard referenced in the Annex current as of 2015-02-03. Note that the Annex may have been updated since this Listing was issued to include more recent editions of the applicable product standard. Therefore, this Listing may not reflect the requirements contained in any updated version of this product standard.

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