

CCMC 13418-L

CCMC Standard compliance evaluation

CCMC number:	13418-L
Status:	Active
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Evaluation holder:	Simpson Strong-Tie Canada, Limited 11476 Kingston Street Maple Ridge BC V2X 0Y5 Canada Website: www.strongtie.com Telephone: 604-465-0296
Product name:	AS-18-HS Truss Plate
Criteria:	CSA-S347-14 "Method of Test for Evaluation of Truss Plates Used in Lumber Joints"

In most jurisdictions this document is sufficient evidence for approval by Canadian authorities.

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Product information

Product name

AS-18-HS Truss Plate

Product 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.

Manufacturing plants

This evaluation is limited to products produced at the following plants:

Product name	Manufacturing plants		
	Columbus, OH, US	McKinney, TX, US	Stockton, CA, US
AS-18-HS Truss Plate	☑	☑	☑

☑ Indicates that the product from this manufacturing facility has been evaluated by the CCMC

Technical information

This evaluation is based on demonstrated conformance with the following criteria:

Criteria number	Criteria name
CSA-S347-14	Method of Test for Evaluation of Truss Plates Used in Lumber Joints

Results of testing the ultimate tensile strength of the plate on the product

Grade of steel	Uncoated nominal plate thickness (mm)	Mean ultimate tensile strength (MPa)	Correction factor
HSLA I410	1.184	523	0.902

Results of testing the lateral resistance of teeth (hydraulic press) on the product

Direction of load	Lateral resistance (MPa/plate) Specific gravity (SG) = 0.42	
	Ultimate lateral resistance, n_u	Lateral slip resistance, n_s
Load parallel to grain, plate length parallel to load	2.37	1.97
Load parallel to grain, plate length perpendicular to load	2.11	1.80
Load perpendicular to grain, plate length parallel to load	1.52	1.36
Load perpendicular to grain, plate length perpendicular to load	1.96	1.88

Results of testing the lateral resistance of teeth (hydraulic press) on the product

Direction of load	Lateral resistance (MPa/plate) Specific gravity (SG) = 0.47	
	Ultimate lateral resistance, n_u	Lateral slip resistance, n_s
Load parallel to grain, plate length parallel to load	2.48	2.86
Load parallel to grain, plate length perpendicular to load	2.60	2.95
Load perpendicular to grain, plate length parallel to load	1.88	2.08
Load perpendicular to grain, plate length perpendicular to load	2.03	2.15

Roller press modification factors

Roller diameter	457 mm (18 in.)	
Roller feed speed	37.3 m/min (122.5 ft/min)	
Ultimate strength 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)

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Results of testing the tensile strength of plate on the product

Direction of load	Limit states design tensile resistance, t_p
Units	N/mm/plate
Plate length parallel to load	267
Plate length perpendicular to load	264

Results of testing the shear strength of the plate on the product

Angle (degree)	Limit states design for 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 symbols:

⊥: Slots perpendicular to plate, long dimension

//: Slots parallel to the plate, long dimension

C: Compression

T: Tension

Administrative information

Use of Canadian Construction Materials Centre (CCMC) assessments

This assessment must be read in the context of the entire [CCMC Registry of Product Assessments](#), any applicable building code or by-law requirements, and/or any other regulatory requirements (for example, the [Canada Consumer Product Safety Act](#), the [Canadian Environmental Protection Act](#), etc.).

It is the responsibility of the user to confirm that the assessment they are using is current and has not been withdrawn or superseded by a later version on the [CCMC Registry of Product Assessments](#).

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Language

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For more information, contact the CCMC by phone at (613) 993-6189 or by email at ccmc@nrc-cnrc.gc.ca

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