



Evaluation Listing CCMC 13270-L MT18HS

Evaluation Issued:	2007-02-02
Re-evaluated:	2013-03-05
Re-evaluation due:	2016-02-02

Preface: Masterformat 06 05 23.07, Metal Truss Connector Plates

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Scope

These Evaluation Listings apply to light metal plate connectors used in structural lumber assemblies. The proponent has demonstrated that the product meets the requirements of the following standard:

- CAN/CSA-O86-09 Consolidation, "Engineering Design in Wood."

The design values for the metal truss connector plates are based on test results obtained in accordance with CAN/CSA-S347-99 (R2009), "Method of Test for Evaluation of Truss Plates Used in Lumber Joints."

Standards

CAN/CSA-S347 requires the following tests:

1. lateral resistance of teeth;
2. tensile strength of plate;
3. shear strength of plate; and
4. ultimate tensile strength of plate material.

Clause 10.8 of CAN/CSA-O86-09 does not apply to truss plates in corrosive conditions, or the use of galvanized truss plates in lumber that has been treated with a fire retardant and that is used in wet service conditions or in locations prone to condensation.

Truss plates must be manufactured from galvanized sheet steel, which should conform to G90 coating class, meeting Clause 14.4.1.2 of CAN/CSA-O86-09.

National Building Code of Canada 2010 (NBC)

NBC References

The CAN/CSA-O86-09 standard is referenced in the NBC 2010, Division B, Table 4.1.8.9. and Sentence 4.3.1.1.(1).

The CAN/CSA-S347-99 (R2009) standard is not directly referenced in the NBC 2010, however it is referenced in Clauses 10.8.1.9, 10.8.3.2.1, and 10.8.4.2. of CAN/CSA-O86-09.

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1. Evaluation

Conforms to CSA S347-99 (R2009), "Evaluation of Truss Plates Used in Lumber Joints," and CSA O86-09 Consolidation, "Engineering Design in Wood." Results from testing in conformance with CSA S347 are as follows:

Ultimate Tensile Strength of Plate

Grade of Steel	Plate Thickness (mm)	Mean Ultimate Tensile Strength (MPa)	Correction Factor
HSLA II410	1.19	524	0.916

Lateral Resistance of Teeth

Species of Wood	Type of Press	Direction of Load	Ultimate Lateral Resistance (MPa)
S-P-F	Hydraulic	Load parallel to grain, plate length parallel to load	2.00
		Load parallel to grain, plate length perpendicular to load	1.40
		Load perpendicular to grain, plate length parallel to load	1.22
		Load perpendicular to grain, plate length perpendicular to load	1.49

Tensile Strength of Plate

Direction of Load	Tensile Resistance Per Plate (N/mm)
Load parallel to plate length	367
Load perpendicular to plate length	176

Shear Strength of Plate

Angle (Degrees)	Limit States Design	Failure Mode	
	Shear Resistance Per Plate (N/mm)	Shear Failure in <u>T</u> or <u>C</u>	Slots in Plate Axis
0	145	<u>N/A</u>	<u>⊥</u>
30	196	<u>T</u>	<u>∥</u>
30	130	<u>C</u>	<u>⊥</u>
60	239	<u>T</u>	<u>∥</u>
60	105	<u>C</u>	<u>⊥</u>
90	160	<u>N/A</u>	<u>∥</u>
120	120	<u>T</u>	<u>⊥</u>

Shear Strength of Plate (cont.)

Angle (Degrees)	Limit States Design	Failure Mode	
	Shear Resistance Per Plate (N/mm)	Shear Failure in <u>T</u> or <u>C</u>	Slots in Plate Axis
120	128	<u>C</u>	
150	130	<u>T</u>	⊥
150	123	<u>C</u>	

Refer:

- ⊥ Slots perpendicular to plate, long dimension
- || Slots parallel to plate, long dimension
- C Compression
- T Tension
- N/A Not Applicable

2. Description

A galvanized, Grade HSLA II410 steel truss connector plate that is 1.19 mm thick. The plates are stamped at a density of 0.0124 teeth/mm². The teeth are 9.5 mm long.

3. Standard and Regulatory Information

See the [Preface](#) and the standard for explanation.

Listing Holder

MiTek Canada, Inc.
100 Industrial Road
Bradford, ON L3Z 3G7

Telephone: 1-800-268-3434

Fax: 905-952-2903

Plant(s)

Bradford, ON

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Date modified:
2013-11-15



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9410/13270-L

2 January 2014

Mr. Robert Baynit, M.Eng., MBA, P.Eng.
Director of Engineering
MiTek Canada, Inc.
100 Industrial Road
Bradford, ON
L3Z 3G7

Dear Mr. Baynit:

Please find attached a CCMC Annual Reaffirmation document for your Evaluation Listing **13270-L**. Your reaffirmation that your product **MT18HS**, has not changed in the past year provides us, and the hundreds of construction professionals who rely on our service, with the basic level of assurance that our evaluation is up-to-date and still valid.

To maintain the validity of your Evaluation Listing, it is essential that you complete this reaffirmation document and return it to us within thirty days.

We are also enclosing the CCMC version of your Evaluation Listing for your records. If there are any errors in the Evaluation Listing, please correct them in ink and return it with your reaffirmation document.

We value your continued interest in CCMC services and look forward to evaluating your future products. If you have any questions, please do not hesitate to contact us.

Yours truly,

Gwen O'Brien
Administrative Assistant
Canadian Construction Materials Centre
1200 Montreal Road, M-24
Ottawa, Ontario, K1A 0R6
Telephone: (613) 993-6354
Facsimile: (613) 952-0268

Attach.

1200 Montreal Road, M-24
Ottawa, Ontario, Canada, K1A 0R6

Tel.: (613) 993-6189
Fax: (613) 952-0268
E-mail: ccmc@nrc-cnrc.gc.ca
<http://www.nrc-cnrc.gc.ca/ccmc>

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