



**Evaluation Listing CCMC 10319-L  
MII 16**

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**Evaluation issued:** 1983-05-30  
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**1. Evaluation**

The product conforms to CSA S347-14 and CSA O86-14. CSA S347 test results are shown in the following tables.

**Table 1.1 Results of Testing the Ultimate Tensile Strength of the Plate on the Product**

Ultimate Tensile Strength (MPa)	Uncoated Nominal Plate Thickness (mm)	Mean Ultimate Strength (MPa)	Correction Factor
380	1.515	381	0.972

**Table 1.2 Results of Testing the Lateral Resistance of the Teeth (Hydraulic Press) on the Product**

Direction of Load	Lateral Resistance (MPa/Plate) Specific Gravity, SG = 0.42	
	Ultimate Lateral Resistance, nu	Lateral Slip Resistance, ns
Load parallel to grain, plate length parallel to load	1.51	1.52
Load parallel to grain, plate length perpendicular to load	1.18	1.15
Load perpendicular to grain, plate length parallel to load	1.04	1.18
Load perpendicular to grain, plate length perpendicular to load	1.35	1.34

**Table 1.3 Roller Press Modification Factors of the Product**

Roller diameter	610 mm (24 in.)
Roller feed speed	45.7 m/min (150 ft/min)
Ultimate strength modification factor, $K_{pu}$	1.00
Slip modification factor, $K_{ps}$	1.00

**Table 1.4 Results of Testing the Tensile Strength of the Plate on the Product**

Direction of Load	Unit	Tensile Resistance, $t_p$
Plate length parallel to load	N/mm/plate	375
Plate length perpendicular to load	N/mm/plate	159

**Table 1.5 Results of Testing the Shear Strength of the Plate on the Product**

Limit States Design		
Angle (Degree)	Shear Resistance, $v_p$ (N/mm/Plate)	Slots in Plate Axis
0, 180	183	^
30T	187	//
30C	151	^
60T	223	//
60C	110	^
90	177	//
120T	125	^
120C	155	//
150T	150	^
150C	142	//

**Legend for symbols in Table 1.5:**

- ^ Slots perpendicular to the plate, long dimension
- // Slots parallel to the plate, long dimension
- C Compression
- T Tension

**2. Description**

“MII 16” truss plate is manufactured from 16 gauge steel sheet that meets the minimum strength and yield requirements of ASTM A653, SS Grade 40 SQ275 and is galvanized with G90 zinc coating per ASTM A924/A924M. “MII 16” truss plate has an uncoated nominal thickness of 1.515 mm and is stamped with 0.0074 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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**Plant(s)**

Bradford, ON

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## Metal Truss Connector Plates [Annex]

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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:

- CSA O86-14, “Engineering Design in Wood”

The design values for the metal truss connector plates are based on test results obtained in accordance with CSA S347-14, “Method of Test for Evaluation of Truss Plates used in Lumber Joints.”

### Standards

CSA S347 requires testing on the following properties:

- lateral resistance of teeth;
- tensile strength of plate;
- shear strength of plate;
- ultimate tensile strength of plate material;
- roller press lateral resistance; and
- moisture response for truss plate joints in structural composite lumber.

Clause 12.8.1.2 of CSA O86 does not apply to truss plates in situations where corrosive conditions exist, or 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 and should be of G90 coating class meeting Clause 12.8 of CSA O86.

### National Building Code of Canada (NBC)

#### NBC References

CSA O86 is referenced in Table 4.1.8.9. and Sentence 4.3.1.1.(1) of Division B of the NBC 2015.

CSA S347-14 is not directly referenced in the NBC 2015, however it is referenced in CSA O86-14, Clauses 16.4.2 and 16.4.3.