

# CCMC 12888-L

## CCMC Standard compliance evaluation

<b>CCMC number:</b>	12888-L
<b>Status:</b>	Active
<b>Issue date:</b>	1998-12-01
<b>Modified date:</b>	2023-11-08
<b>Evaluation holder:</b>	<p><b>London Roof Truss Inc.</b>                      1941 Gore Road                      London ON N5W 6B9                      Canada                      Telephone: 519-455-8787</p>
<b>Product name:</b>	ES-16
<b>Criteria:</b>	<p>CSA-O86-14, "Engineering Design in Wood"                      CSA-S347-14, "Method of Test for Evaluation of Truss Plates Used in Lumber Joints"</p>

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

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# Product information

## Product name

ES-16

## Product description

A hot-dipped galvanized G90, Grade SS255 steel truss connector plate with a thickness of 1.50 mm that is stamped parallel with 0.0065 teeth/mm<sup>2</sup>. The teeth are 11.1 mm long and 5.1 mm wide. They are spaced 25.3 mm on centre (o.c.) along the width of the plate and 37.5 mm o.c. along the length of the plate. The slots in adjacent rows are staggered.

## Manufacturing plant

This evaluation is valid only for products produced at the following plant:

Product name	Manufacturing plant
	London, ON, CA
ES-16	☑

☑ 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-O86-14	Engineering Design in Wood
CSA-S347-14	Method of Test for Evaluation of Truss Plates Used in Lumber Joints

**Table 1. Results of testing the ultimate tensile strength of the plate <sup>(1)</sup>**

Nominal uncoated plate thickness requirement (mm)	Minimum coated plate thickness requirement (mm)	Minimum uncoated plate thickness requirement (mm)	Maximum plate thickness requirement for tests (mm)	Average uncoated thickness for test ( $t_{test}$ ) (mm)	Ultimate tensile strength requirement (MPa)	Average test result for ultimate tensile strength (MPa)	Correction factor
1.520	1.473	1.397	1.596	1.346	360	444.8	0.840

**Notes:**

<sup>1</sup> ASTM A 653/A 653M-13, "Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process," SS, Grade 255

**Table 2. Results of testing the lateral resistance of teeth**

Direction of load	Limit states design ultimate lateral resistance, $n_u$	Limit states design lateral slip resistance, $n_s$
<b>Units</b>	MPa/Plate	MPa/Plate
<b>Type of press</b>	Hydraulic	Hydraulic
<b>Species of wood</b>	S-P-F	S-P-F
<b>Load parallel to grain, plate length parallel to load</b>	1.62	2.24
<b>Load parallel to grain, plate length perpendicular to load</b>	1.92	2.76
<b>Load perpendicular to grain, plate length parallel to load</b>	1.38	1.20
<b>Load perpendicular to grain, plate length perpendicular to load</b>	1.80	2.26

**Table 3. Results of testing the tensile strength of the plate**

Direction of load	Limit states design for tensile resistance, $t_p$ (N/mm/plate)
<b>Plate length parallel to load</b>	337
<b>Plate length perpendicular to load</b>	184

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**Table 4. Results of testing the shear strength of the plate**

Angle (degree)	Limit states design for shear resistance, $v_p$ (N/mm/Plate)	Shear failure in tension or compression	Slots in plate axis
0	136	N/A	⊥
30	113	Compression	⊥
30	195	Tension	//
60	90	Compression	⊥
60	248	Tension	//
90	165	N/A	//
120	147	Compression	//
120	131	Tension	⊥
150	136	Compression	//
150	154	Tension	⊥

**Legend for symbols**

⊥ : Slots perpendicular to plate, long dimension

// : Slots parallel to plate, long dimension

# Administrative information

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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

Une version française de ce document est disponible.

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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](mailto:ccmc@nrc-cnrc.gc.ca)

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