



## Evaluation Listing CCMC 14063-L EverGuard® TPO Roofing Products

<b>MasterFormat:</b>	07 13 54.02
<b>Evaluation issued:</b>	2017-06-07
<b>Re-evaluation due:</b>	2020-06-07

### 1. Evaluation

The product conforms to ASTM D 6878/D 6878M-11a, “Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing.”

### 2. Additional Information

#### 2.1 Fire Protection

The membrane is certified by UL to CAN/ULC-S107-10. For more information, see UL Certificate, “TGFU7.R1306 Roofing Systems”.

#### 2.2 Wind Uplift Resistance of Membrane Roofing Assemblies

The wind uplift resistance performance rating is based on CSA A123.21-14, “Standard test method for the dynamic wind uplift resistance of membrane-roofing systems”.

The 1.1-mm-thick membrane used in the roofing assembly achieved Level B wind uplift resistance. For details on the roofing assembly, see PRI Construction Materials Technologies, LLC (PRI-CMT) test report GAF-623-02-01.

The 1.1-mm-thick membrane used in the roofing assembly achieved Level C wind uplift resistance. For details on the roofing assembly, see PRI Construction Materials Technologies, LLC (PRI-CMT) test report GAF-623-02-02.

### 3. Description

The product is a three-layer sheet roofing membrane composed of a thermoplastic polyolefin (TPO) base layer, a polyester reinforcing mat layer, and a TPO top layer. The product is available in thicknesses of 1.1 mm and 1.2 mm.

The product can be mechanically or fully adhered to the substrate deck.

### 4. Standard and Regulatory Information

These product(s) were evaluated to the product standard referenced in the Annex current as of 2017-06-07. 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.

See the Annex appended to this Listing, which summarizes the product standard, and provides information regarding the fire protection and wind uplift performance standards.

## Listing Holder

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## Plant(s)

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## Thermoplastic Polyolefin-Based Sheet Roofing [Annex]

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### Scope

### Evaluation

These Evaluation Listings apply to thermoplastic-polyolefin (TPO)-based sheet membranes for use in roofing membranes.

The standard referenced below provides a basis for evaluating TPO as the principal polymer, intended for use in single-ply roofing membranes exposed to the weather.

The TPO membranes addressed in the standard include reinforcing fabrics or scrims.

The standard specifies that the membrane must be formulated from ethylene and higher alpha-olefin polymers, copolymers, and mixtures thereof, in amounts greater than 50% by weight of the total polymer content.

The proponent has demonstrated that the product meets the requirements of the following standard:

- ASTM D 6878/D 6878M-11a, “Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing”

The test and property limit values used to characterize the sheet membranes are intended to ensure a minimum level of quality for the intended purpose. In-place roof system design criteria, such as fire resistance, field-seaming strength, material compatibility, and uplift resistance are factors that should be considered.

### Additional Information

If stated in the Listing, the proponent has provided information related to:

- **Fire Classification of Roof Covering**  
The membrane was tested in accordance with CAN/ULC-S107-10, “Standard Methods of Fire Tests of Roof Coverings.”
- **Fire-Resistance Rating**  
The membrane used in the roofing assembly was tested in accordance with CAN/ULC-S101-14, “Standard Method of Fire Endurance Tests of Building Construction and Materials.”
- **Wind Uplift Resistance of Membrane Roofing Assemblies**  
The membrane used in the roofing assembly was tested in accordance with CAN/CSA-A123.21-10, “Standard Test Method for the Dynamic Wind Uplift Resistance of Membrane-Roofing Systems.”

## Evaluation Standard

Table 1. Physical Requirements for TPO Sheet Membrane

Property		Unit	Requirement
Thickness, sheet-overall <sup>1</sup>		mm	≥ 1.0
Coating over fabric or scrim, weathering side only		mm	≥ 0.38
Breaking strength		N	≥ 976
Elongation at reinforcement break		%	≥ 15
Tearing strength		N	≥ 245
Brittleness point <sup>2</sup>		°C	≤ -40
Ozone resistance (visual inspection)		n/a	no cracks
Retention of properties after heat aging <sup>3</sup>	breaking strength	%	≥ 90
	elongation at reinforcement break		≥ 90
	tearing strength		≥ 60
	weight change (mass)		≤ ±1
Linear dimensional change		%	≤ ±1
Factory seam strength		N	≥ 290
Weather resistance (visual inspection) <sup>3</sup>		n/a	no cracks or crazing
Water absorption (mass increase) <sup>4</sup>		%	≤ ±3

### Notes to Table 1:

- 1 The thickness tolerance shall be +15%, -10% of the thickness agreed upon by the purchaser and supplier, but in no case shall it be less than the minimum specified in Table 1.
- 2 The tolerance for temperature conditions is ±2°C of the specified temperature, unless otherwise specified.
- 3 The tolerance for time conditions is ±15 min or ±1 % of the period, whichever is greater, unless otherwise specified.
- 4 Test performed on top coating material only. Use ASTM D 471 - 16a, Standard Test Method for Rubber Property—Effect of Liquids, Section 11, Change in Mass (after immersion)".

## Labelling

The containers holding the rolled material must be suitably marked to show the following information:

- the name of the material;
- the product code;
- the ASTM number;
- size and/or quantity; and
- the name of the manufacturer or supplier.

## **National Building Code of Canada (NBC)**

### **References in Division B of the NBC 2015**

#### **Evaluation Standard**

ASTM D6878 / D6878M-11a is referenced in Table 5.9.1.1., Sentence 9.13.3.2.(2) and Table 9.26.2.1.-B.

#### **Standards containing additional information**

CAN/CSA-A123.21-10, which is referenced in Sentence 5.2.2.2.(4).

CAN/ULC-S101-14 is referenced in Sentence 3.1.7.1.(1) and Table 9.10.3.1.-B.

CAN/ULC-S107-10 is referenced in Sentence 3.1.15.1.(1).