

# RGC ACCEPTANCE CRITERIA for INORGANIC FIBREGLASS-REINFORCED ASPHALT SHINGLES Used in Water-shedding Assemblies

## RGC ACWS-ASH

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### Preface

Acceptance Criteria created by the RGC (“Guarantor”) are intended solely to establish objective requirements for materials used in the RoofStar™ Guarantee Program (property of the RCABC Guarantee Corp. (RGC)) through which the RGC issues the RoofStar™ Guarantee for waterproofing and water-shedding systems. Materials used in the construction of waterproofing or water-shedding systems must be accepted by the RGC. Refer to other resources in the *Roofing Practices Manual* for other criteria, and for documents, related to the application and approval process.

Use of this Acceptance Criteria is strictly for the purpose of admitting into the RoofStar™ Guarantee Program products manufactured expressly for waterproofing or water-shedding assemblies, for roofs or at-grade. Use of this Acceptance Criteria for any other purpose shall be at the sole discretion of the user and is not endorsed or condoned by the RGC. Furthermore, this Acceptance Criteria, and the term “accepted”, shall not be construed as a measure of a material’s efficacy or its suitability for any application outside the RoofStar™ Guarantee Program, nor shall it be construed to mean that the *Guarantor* endorses a product conforming to the requirements set out in this document.

This Acceptance Criteria provides guidelines for the material and performance characteristics to which an accepted material must conform. Acceptance is confirmed by the *Guarantor* through a review of the applicant’s submission and is finally endorsed by the RGC Board of Directors. Accepted materials are periodically reviewed by the RGC for conformity to these criteria, and acceptance may be revoked at any time should the product change so that it no longer conforms.

RGC Acceptance Criteria are evaluated periodically by the RGC Technical Committee, which meets throughout the year. The RGC reserves the right under policy to change Acceptance Criteria at any time, and any changes to this Acceptance Criteria shall be effective on the date shown on this document.

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Changes will be highlighted for a period of twelve (12) months. Previous versions of this Acceptance Criteria can be requested in writing from the *Guarantor*.

In the event that a product listed in the RoofStar Guarantee Program is rendered non-conforming by a change in an Acceptance Criteria, the manufacturer will have no more than twelve (12) months from the date of the change to conform to the Acceptance Criteria and resubmit the material for acceptance by the RGC. Non-conforming materials will be removed from the RoofStar Guarantee Program.

## 1.0 Purpose and Scope

### 1.1 Purpose

The purpose of this Acceptance Criteria is to establish basic requirements for asphalt shingles, manufactured with or without modified bitumen and manufactured with a non-organic fibreglass reinforcement scrim.

### 1.2 Scope

Asphalt shingles are manufactured in various sizes and often in configurations of laminate layers. Generally, asphalt shingles manufactured for the Canadian market conform to CSA-A123.5 *Asphalt shingles made from glass felt and surfaced with mineral granules*, but there are certain material and performance aspects that the Standard does not address. This document establishes additional criteria by which the RGC guarantees asphalt shingles in the British Columbia marketplace.

## 2.0 General

### 2.1 Reference Documents

- 2.1.1 **CSA-A123.5** *Asphalt shingles made from glass felt and surfaced with mineral granules*. CSA Group.
- 2.1.2 **CSA-A123.51** *Asphalt shingle application on roof slopes 1:6 and steeper*. CSA Group.

### 2.2 Definitions

- 2.2.1 **Applicant** means the manufacturer or, in the alternative, the agent, distributor or another party representing the manufacturer, who presents the *product* for consideration of acceptance by the RGC.
- 2.2.2 **Common Bond** means the bond between overlapping shingle layers of a laminated (“architectural”) asphalt shingle.
- 2.2.3 **Fastening zone** means the delineated region on the weather side of a shingle, denoting the area within which the manufacturer permits the use of nail fasteners to secure the shingle to a substrate. When the *fastening zone* is shown as a line, the term *fastening line* will convey the same meaning.
- 2.2.4 **Product** means the material submitted for acceptance by the RGC, under the terms of this Acceptance Criteria.

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- 2.2.5** Other terms as defined in the Glossary of the *RGC Roofing Practices Manual*, or as defined in *ASTM D1079 Standard Terminology Relating to Roofing and Waterproofing*.

## 3.0 Criteria for Acceptance

### 3.1 Membership

The *Applicant* must be a member of the RCABC/RCABC Guarantee Corp. (RGC), and must have completed the following administrative requirements:

- 3.1.1 Policy A-055 Associate Member Commitment**
- 3.1.2 Policy A-041 Material Acceptance Criteria**
- 3.1.3 Policy A-078 Material Acceptance Agreement**
- 3.1.4 Material Bond** (ref. **Policy A-080 Material Bond**)

### 3.2 Product marketplace installation

- 3.2.1** The *Applicant* shall disclose, together with the *product* application, a list of projects located in British Columbia that incorporate the *product*. Projects must be complete and in service for at least two (2) consecutive years preceding the date of application. The list of projects shall include no fewer than six (6). The list shall be submitted on the Product History form which is downloadable from the Roofing Practices Manual.
- 3.2.2** The requirements in **3.2.1** may be supplemented with a list of projects in regions with a similar climate to the climate for which the *product* is submitted (ref. **3.5.2.1**).

### 3.3 Material Information

- 3.3.1 Characteristics**  
The *product* shall conform to the characteristics described in CSA-A123.5, Section 5, *Physical Requirements*.

### 3.4 Packaging and Identification

- 3.4.1** The *product* packaging shall conform to the requirements in CSA-A123.5, Section 11, *Packaging, shipping, and marking*.
- 3.4.2** The *product* shall be identified on the Declaration of Conforming Product by one of the following criteria, which are described in Policy A-041.
  - 3.4.2.1 Branded (Proprietary)**
  - 3.4.2.2 Private Labeled**
  - 3.4.2.3 Co-branded**

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### 3.5 Product Specifications and Test Procedures

- 3.5.1 General Specifications:** Products must conform to **CSA-A123.5 Asphalt shingles made from glass felt and surfaced with mineral granules.**
- 3.5.2** In addition to requirements in **3.5.1**, the *product* must conform to the following requirements.
- 3.5.2.1 Climate suitability:** The *Applicant* shall declare which climate zones the product may be installed in (Climate Zone 4, 5, 6, 7a, 7b or 8).
- 3.5.2.2 Mass (Weight):** *Product* mass (weight) shall be measured using the methods described in *CSA-A123.5*, Section 7, Article **7.2.3** and Article **7.3.2**. Mass shall be expressed both in metric units ( $\text{g}/\text{m}^2$ ) and Imperial units ( $\text{lbs}/100 \text{ft}^2$ ).
- 3.5.2.3 Fire Rating (Class):** The *product* must be classified using the test method *ASTM E108-20a*. Results shall be expressed as Class A, B or C using the roof covering classes described in the test method.
- 3.5.2.4 Common Bond:** The *product* shall be manufactured with a *common bond* measuring no less than 12.7 mm ( $1/2''$ ) in width (when measured from the top and bottom edges of the *common bond*).
- 3.5.2.5 Fastening zone (Fastening line):** The *fastening zone* or line must be clearly demarcated on the weather side of the shingle. Where the *fastening zone* is a line, the line shall be clearly and permanently marked.
- 3.5.2.6 Bitumen content:** The *product* must be manufactured with a bitumen/shingle coverage ratio no less than  $3.55 \text{ Kg}/\text{m}^2$  ( $15 \text{ lbs}/100 \text{ft}^2$ ), but the amount of bitumen in the product shall be declared by the *Applicant* using the following ranges:
- 3.5.2.6.1** Bitumen content  $>3.55 \text{ Kg}/\text{m}^2$  ( $15 \text{ lbs}/100 \text{ft}^2$ )
- 3.5.2.6.2** Bitumen content  $>4.73 \text{ Kg}/\text{m}^2$  ( $20 \text{ lbs}/100 \text{ft}^2$ )
- 3.5.2.6.3** Bitumen content  $>5.92 \text{ Kg}/\text{m}^2$  ( $25 \text{ lbs}/100 \text{ft}^2$ )
- 3.5.2.7 Self-adhesive strip:** The *product* shall be manufactured with a strip of self-adhesive material designed to bond to preceding courses of the *product*. The strip shall be free of granules and shall permit drainage paths through the self-adhesive strip.
- 3.5.2.8 Hand Sealing:** The lower temperature limit at which manual adhesive tabbing is required shall be declared by the *Applicant*.
- 3.5.2.9 Wind resistance:** Whereas the Standard *CSA-A123.5* requires only a "Pass" designation for the wind resistance test, *ASTM D3161*, the numeric value of the test results shall be disclosed by the *Applicant*.
- 3.5.2.10 Modifiers:** When polymers have been used to modify the asphalt content in the shingle, the *Applicant* shall disclose on the Declaration of Conforming Product the nature and percentage of the polymeric modifier.

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**3.5.2.11 Reinforcement:** The *Applicant* shall disclose whether the fiberglass reinforcement scrim is woven, non-woven, or a composite blend of fiberglass scrim materials.

### 3.6 Additional Product Requirements

**3.6.1 Shingle style:** *Applicant* shall disclose on the Declaration the style and layout of the *product*:

**3.6.1.1** Designer/architectural, or representational (shake or slate)

**3.6.1.2** Laminated

**3.6.1.3** Three-tab

## 4.0 Product Testing and Verification

The *Applicant* must present a Declaration of Conforming Product, supported by a report produced by a testing laboratory that possesses no affiliation with the *Applicant*. Manufacturer technical data publications will not be accepted as an alternative to third party verification.

## 5.0 Guarantor Disclosure of Information

The *Guarantor* agrees to share in tables or pages of the Roofing Practices Manual only the following collected data; all other data collected through this Acceptance Criteria will be retained in confidence by the *Guarantor* and utilized only for Guarantee purposes:

1. Climate zone suitability (**3.5.2.1**)
2. Mass (weight) – per area (**3.5.2.2**)
3. Fire rating (Class) (**3.5.2.3**)
4. Width of *common bond* (**3.5.2.4**)
5. Temperature for hand-sealing (**3.5.2.8**)
6. Wind resistance (numeric value) (**3.5.2.9**)
7. Type of asphalt modifiers (**3.5.2.10**)
8. Shingle Style (**3.6.1**)

## 6.0 Application

Refer to Division C in the RGC *Roofing Practices Manual* for downloadable copies of application forms.