

This technical data sheet is based upon the CSC Manu-Data® format.

January 2018

1. Product Name

Enviroshake Roofing

2. Manufacturer

Enviroshake
650 Riverview Drive
Chatham, Ontario, N7M 5W8
Canada
Phone: 1-(519) 380-9265
Toll Free: (866) 423-3302
FAX: 1-(519) 380-0689
e-mail: info@enviroshake.com .
URL: <http://www.enviroshake.com>



Enviroshake gazebo roof

3. Product Description

DESCRIPTION

Enviroshake is a composite roof shake that authentically emulates the look of a natural hand split cedar shake that competes in the specialty and premium roof markets.

BASIC USE

Enviroshake composite shakes are used for roofing applications. Properly installed shakes provide long lasting weather protection and a rustic aesthetic look weatherproofing system.

BENEFITS

Enviroshake gives the pleasing aesthetic of cedar shakes with lifetime performance and with minimal amount of maintenance.

The 6 profiles that the Enviroshake comes in are made from the 3D images of real cedar shakes, to ensure the wood grains, thickness, and sizes are all true to nature.

They come in three tones: Silvered Cedar, Aged Cedar, and Multi-Tones that weather with exposure to UV, and as with cedar,

there will be variations in shading to provide a natural look on the roof.

No special tools are needed to install Enviroshake composite shake roofing.

Enviroshake comes in Gold and Standard Level warranties with a lifetime warranty for residential applications and a 50-year warranty for commercial applications. See Warranty Document for more information.

LIMITATIONS

Enviroshake should not be installed over existing asphalt shingles, or OSB or roof slopes less than 2/12.

TYPES AND SIZES

Enviroshake comes in widths of 12 inch, (pre-molded 4 to 8 inch, 8 to 4 inch and 6 to 6 inch profiles) each with a length of 20 inches. Each shake is tapered and measures approximately ½ inch at the butt end and narrows to approximately an 1/8 inch (resembling a hand-sawn cedar shake)

The SC shakes are bundled with white wrapping/strapping, and AC shakes are bundles with green wrapping and yellow strapping bearing the Enviroshake script, labeled, and shrink-wrapped on skids (7 square/70 bundles per skid) for shipping. Each bundle contains 13 pieces of varied profiles.


There are 10 bundles to a “Square” at a 9” exposure. Ridge caps are a 12 inch wide one-piece shake, custom formed to the specification of the roof slope and are packaged in bundles of 10 pieces using white strapping for SC and yellow strapping for AC bearing the Enviroshake script.

COVERAGE

1 square covers 100 square feet when installed at a 9” exposure. The minimum slope is 2:12. The recommended & maximum exposure is 9 inches, but Enviroshake can be installed at exposures as low as 5” or in a staggered course. There is no limit on the maximum slope.

4. Technical Data

Copies of test procedures and results are available upon request.

Canadian Construction Materials Centre (CCMC) <i>Technical Guide Master Format Re-evaluated October 2017</i>		International Conference of Building Officials (ICC) <i>Acceptance Criteria for Special Roofing Systems- Protocol AC07</i>		Building Materials Evaluation Commission (BMEC) Dec. 1999	
Testing Procedure	Standard	Testing Procedure	Standard	Testing Procedure	Standard
A. Physical and Mechanical Properties		1. Weatherometer	ASTM G23 ASTM G26 ASTM D790	1. Impact Testing	ASTM D2794
1. Density	ASTM D792	2. Roof classification		2. Water Absorption	ASTM D570
2. Impact Izod	ASTM D256 (Method A (1))	-fire retardant	UBC Standard 15-2 ICBO 4.9	3. Wind Resistance	ASTM D3161
3. Dimensional Stability	CGSB-37.58-M86	Accelerated weathering and ignition/burning rate tests	UBC Standard 26-6 UBC Standard 26-7 ICBO 4.9	4. Tear Strength/Nail Head Resistance	ASTM D1037
4. Water Absorption	CCMC 6.4.1	3. Wind Uplift	Any test (dynamic, static and structural calculations)	5. UV Exposure	ASTM G-53
5. Strain Energy	ASTM D5147, CCMC 64.3	4. Wind-Driven Rain	ICBO 4.3	6. Freeze Thaw	ASTM C666
6. Modulus of rupture (static bending)	ASTM D1037	5. Uplift-Bend	ICBO 4.4		
7. Ozone resistance	ASTM D1149	6. Penetration	ICBO 4.2		
B. Performance Roofing System		7. Temperature-cycling	ICBO 4.8	 <p>Enviroshake used in commercial application</p>	
1. Uplift bend	CCMC 64.4	8. Flexural strength	ICBO 3.5.2 UBC Standard 15-5		
2. Traffic load	ASTM E661, DADE PA 100-95				
3. Wind uplift	DADE PA 100-95				
4. Dynamic pressure water infiltration	DADE PA 100-95				
5. Nail pull-through	ASTM D1037				
6. Accelerated weathering	ASTM G155, CCMC 6.4.7				
7. Heat ageing	CCMC 6.4.8				
8. Freeze thaw	CCMC 6.4.9				

This technical data sheet is based upon the CSC Manu-Data® format.

January 2018

APPLICABLE STANDARDS

ASTM International

- ASTM D7349/D7349M, Standard Test Method for Determining the Capability of Roofing and Waterproofing Materials to Seal around Fasteners.
- ASTM E108, Standard Test Methods for Fire Tests of Roof Coverings.

Canadian General Standards Board (CGSB)

- CGSB-37.58-M86, Membrane, Elastomeric, Cold-Applied Liquid, for Non-Exposed Use in Roofing and Waterproofing.

Florida Building Code Testing Application Standard (TAS)

- TAS-125- Test for Uplift Resistance on Roof Assemblies

Miami-Dade Construction Standards (DADE)

- DADE PA 100-[2000], Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems.

Underwriter's Laboratories

- UL 2218, Impact Resistance of Prepared Roof Covering Materials, Class 4.

US Green Building Council

- USGBC: LEED® NC Version 2.2.

APPROVALS

- American Society for Testing and Materials Limited.
- California Building Materials Listing No. 4175-2114:0100
- Florida Building Code FL#16037-R2
- Miami Dade County NOA No. 17-1003.17
- National Building Code of Canada.
- Canadian General Standards Board: Stability Testing - Products are tested

at temperature cycles ranging from -40°F (-40°C) to 160°F (71°C).

- National Building Code of Canada.
- Uniform Building Code: UV Testing - 2000 hours of accelerated weathering tests are completed to ensure no evidence of change in physical properties

ENVIRONMENTAL CONSIDERATIONS

Enviroshake composite roofing shingles are slippery when wet. Do not walk on Enviroshake composite roofing shingles while they are rain, ice, frost or snow covered.

SUSTAINABILITY CONSIDERATIONS

For information on LEED Prerequisites and Credits associated with this product, refer to the "LEED Brochure on the Enviroshake web site at <http://www.enviroshake.com>.

5. Installation

Enviroshake should be installed as a new roofing system.

Install drip edge, valley and ridge flashings, eaves protection and synthetic underlayment before installing shingles (a 36" ice and water shield membrane is used on eaves, valleys, rakes, hips and ridges). Enviroshield synthetic underlayment is a requirement to achieve Gold Level Warranty.

Use double starter course at bottom edges, including vertical and high slope roof surfaces.

Fasten each shake with four 1-1/2 inch stainless steel nails minimum regardless of shake width. Although stainless steel nails

are preferred hot-dipped galvanized nails are also acceptable.

Lay each consecutive row of shakes at 9-inch exposure, ensuring that there is no keyway on keyway, and that there is a 3/8" gap between every shake (including the starter row).

Using a synthetic underlayment negates the need for interweaving.

Cut shakes to fit accurately around roof projections.



Use only uncut factory edges kept flush along rake and gable ends and where ends are exposed.

Install prefinished soffits and fascia material where indicated.

Install roof ventilators and other roofing accessories where indicated.

When using a ridge venting system, drop the ridge cap slope by 1 size.

The minimum roof slope on which Enviroshake is recommended is 2:12. For more detailed installation instructions refer to the Enviroshake Installation Guide.

Refer to Enviroshake Installation Guide videos at <http://www.enviroshake.com/photos-and-video>.

6. Availability and Costs

AVAILABILITY

Order composite roof shakes 2 – 4 weeks before required delivery dates.

COSTS

Contact Enviroshake for current product costs.

7. Warranty

Enviroshake comes in Gold and Standard Level warranties with a 50-year warranty for commercial installations and limited lifetime warranty for residential installations. (Caribbean applications have a 25-year warranty)

Warranty is dependent upon installation by a Factory Trained Enviroshake Installer. Please see Warranty Document for further details.

8. Maintenance

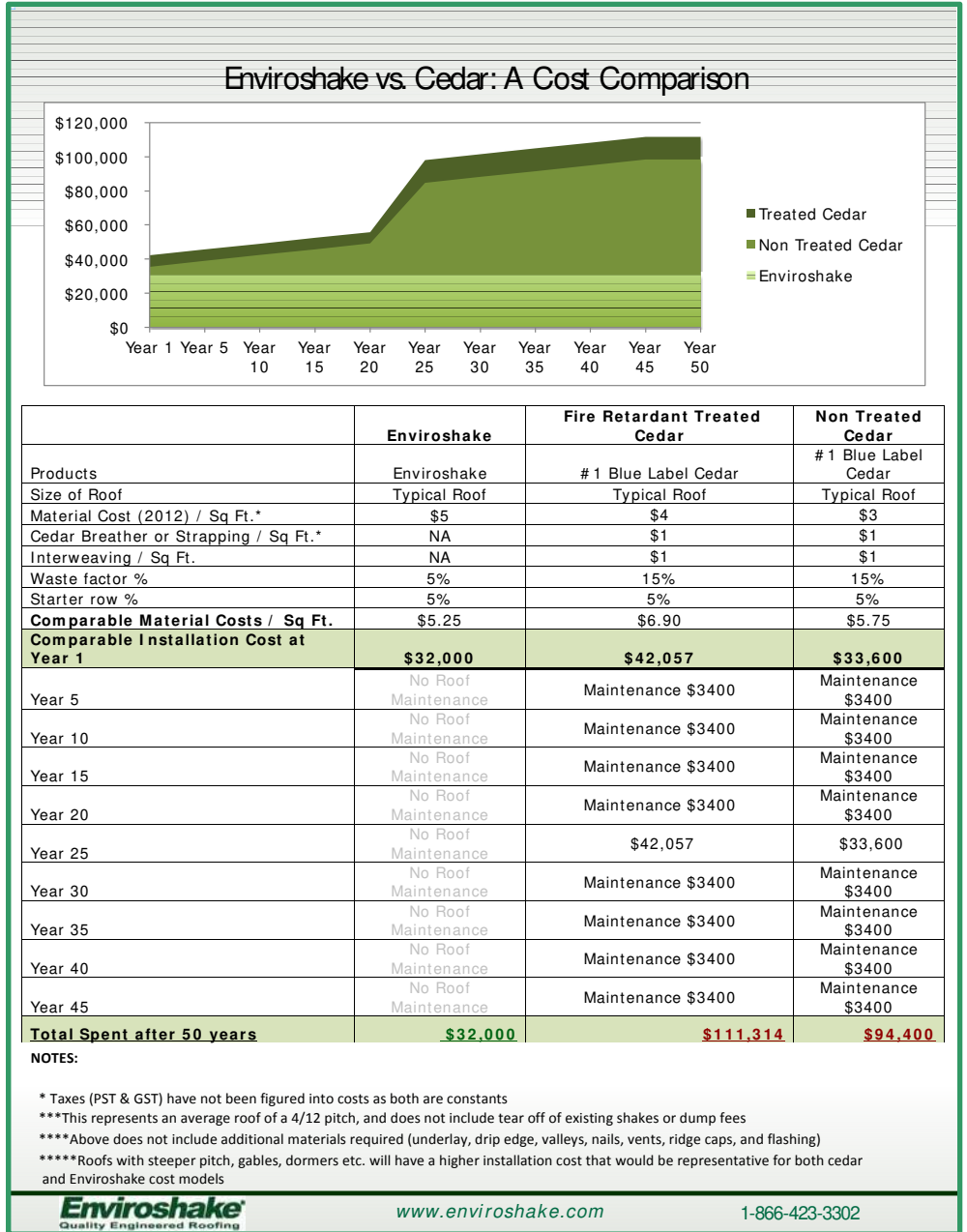
Composite shake roofing should be regularly inspected for organic built up and should be removed from the roof. No special tools are required for roof maintenance.

9. Technical Services

Technical representative will visit project site as required during construction.

10. Filing Systems

- MasterFormat™ 07 31 34.
- OmniClass™
Table 21 02 10 20 90.
Table 22 07 31 34.
Table 23 13 39 21.



	Enviroshake	Fire Retardant Treated Cedar	Non Treated Cedar
Products	Enviroshake	# 1 Blue Label Cedar	# 1 Blue Label Cedar
Size of Roof	Typical Roof	Typical Roof	Typical Roof
Material Cost (2012) / Sq Ft.*	\$5	\$4	\$3
Cedar Breather or Strapping / Sq Ft.*	NA	\$1	\$1
Interweaving / Sq Ft.	NA	\$1	\$1
Waste factor %	5%	15%	15%
Starter row %	5%	5%	5%
Comparable Material Costs / Sq Ft.	\$5.25	\$6.90	\$5.75
Comparable Installation Cost at Year 1	\$32,000	\$42,057	\$33,600
Year 5	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Year 10	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Year 15	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Year 20	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Year 25	No Roof Maintenance	\$42,057	\$33,600
Year 30	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Year 35	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Year 40	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Year 45	No Roof Maintenance	Maintenance \$3400	Maintenance \$3400
Total Spent after 50 years	\$32,000	\$111,314	\$94,400

NOTES:

* Taxes (PST & GST) have not been figured into costs as both are constants

***This represents an average roof of a 4/12 pitch, and does not include tear off of existing shakes or dump fees

****Above does not include additional materials required (underlay, drip edge, valleys, nails, vents, ridge caps, and flashing)

*****Roofs with steeper pitch, gables, dormers etc. will have a higher installation cost that would be representative for both cedar and Enviroshake cost models