

2023 Renewal Recycled Content Certification Assessment Report

LOTTE Chemical Corp.

Songpa-gu, Seoul, South Korea

Solid Surfaces:

Radianz® Quartz Surfaces and Staron® Solid Surfaces

August 11, 2023



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Overall Assessment Summary

SCS completed the Renewal Recycled Content Certification Assessment for Lotte Chemical Corp. for the following Product Scope with the summary of results detailed below:

Data Review Period: 06/01/22 to 05/31/23

Manufacturing Sites and Product Lines:

1. Yeosu, Korea: 62, Pyeongyeo-Dong, Yeosu-Si, Jeollanam-Do, Korea
 - a. Radianz® Quartz Surfaces
 - b. Staron® Solid Surfaces

Scope Changes:

The following changes were required for this assessment:

Manufacturing Sites Added or Removed: None

Suppliers Added or Removed: None

Products Removed:

STATUS	PRODUCT NAME	CERTIFICATE (OPTIONAL)	RECYCLED CONTENT COMPOSITION	
Removed	Staron® Solid Surfaces: Evermoin Ultra bright, Evermoin Limpio, Solid Champagne, Tempest Adamantine	SCS-RC-02656	Minimum 6% Pre-Consumer Recycled Resin and Chip Content.	Product lines removed from the scope of the assessment.
Removed	Kunlun Ink	SCS-RC-02333	Minimum 32% Pre-Consumer Recycled Glass Content	Product line removed from the scope of the assessment.
Removed	Mirama Bronze, Verona Verde	SCS-RC-02655	Minimum 5% Pre-Consumer Recycled Glass Content	Product lines removed from the scope of the assessment.

Products Added:

STATUS	PRODUCT NAME	CERTIFICATE (OPTIONAL)	RECYCLED CONTENT COMPOSITION	
New	Solid Universe (N)	SCS-RC-06254	Minimum 6% Pre-Consumer Recycled Glass Content.	
New	Solid Bliss	SCS-RC-06254	Minimum 7% Pre-Consumer Recycled Glass Content.	
New	Solid Sunflower (N)	SCS-RC-06254	Minimum 6% Pre-Consumer Recycled Resin and Chip Content	
New	Solid Pure White (S)	SCS-RC-09257 (NEW)	Minimum 6% Pre-Consumer Recycled Resin and Chip Content	

The evaluation of the facility and production information, confirms the following:

- There are changes to the scope of work outlined in WO# LOT-23-02. Lotte added one new certificate for the Solid Pure White (S) product line, see NOC WO# LOT-23-03.
- All criteria are sufficiently met.
- Summary of any findings has been noted in Section 5.

Logo Use and Language Review: Lotte's use of SCS logo and claims language IS acceptable according to the SCS Labeling and Language Guide.

CERTIFICATION RECOMMENDATION: Compliance met.

On-Site Audit: No site audit required. There is adequate control of the production and quality control measures.

Product Certification Information

The following claims are recommended:

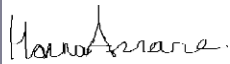

Manufacturing Site: Yeosu, Korea: 62, Pyeongyeo-Dong, Yeosu-Si, Jeollanam-Do, Korea

CERTIFICATE	CLAIM (dry-weight basis)	LOGO LANGUAGE	PRODUCT CATEGORY	PRODUCT LINE NAMES	CHANGES SINCE PREVIOUS ASSESSMENT
SCS-RC-02333	Conforms to SCS Recycled Content Standard V7-0 for a Minimum 12% Pre-Consumer Recycled Glass Content . The material quantification and mass-balance calculations are completed on a dry-weight basis.	MINIMUM 12% RECYCLED CONTENT PRE-CONSUMER	Solid Surfaces	Radianz® Quartz Surfaces: Imperial Gray	Decrease in certified recycled content claim as supported by the revised BOM. Imperial Gray added to the scope of the certificate. Kunlun Ink removed from the scope of the assessment
SCS-RC-01955	Conforms to SCS Recycled Content Standard V7-0 for a Minimum 29% Pre-Consumer Recycled Glass Content . The material quantification and mass-balance calculations are completed on a dry-weight basis.	MINIMUM 29% RECYCLED CONTENT PRE-CONSUMER	Solid Surfaces	Radianz® Quartz Surfaces: Gentle Gray	N/A
SCS-RC-02332	Conforms to SCS Recycled Content Standard V7-0 for a Minimum 22% Pre-Consumer Recycled Glass Content . The material quantification and mass-balance calculations are completed on a dry-weight basis.	MINIMUM 22% RECYCLED CONTENT PRE-CONSUMER	Solid Surfaces	Radianz® Quartz Surfaces: Elbrus Boulder, Mont Blanc Snow	Decrease in certified recycled content claim as supported by the revised BOM.
SCS-RC-02655	Conforms to SCS Recycled Content Standard V7-0 for a Minimum 5% Pre-Consumer Recycled Glass Content . The material quantification and mass-balance calculations are completed on a dry-weight basis.	MINIMUM 5% RECYCLED CONTENT PRE-CONSUMER	Solid Surfaces	Radianz® Quartz Surfaces: Mariposa Buff	Decrease in certified recycled content claim as supported by the revised BOM. The following product lines removed from the scope: Mirama Bronze, Verno Verde

SCS-RC-02656	Conforms to SCS Recycled Content Standard V7-0 for a Minimum 9% Pre-Consumer Recycled Glass Content . The material quantification and mass-balance calculations are completed on a dry-weight basis.	MINIMUM 9% RECYCLED CONTENT PRE-CONSUMER	Solid Surfaces	Radianz® Quartz Surfaces: Sierra Bedrock, Whistler Mocha Gray, Saltoro Cliff	Imperial Gray removed from the certificate and added to certificate number SCS-RC-02333.
SCS-RC-06254	Conforms to SCS Recycled Content Standard V7-0 for a Minimum 6% Pre-Consumer Recycled Resin and Chip Content . The material quantification and mass-balance calculations are completed on a dry- weight basis.	MINIMUM 6% RECYCLED CONTENT PRE-CONSUMER	Solid Surfaces	Staron® Solid Surfaces: Solid Universe (N), Solid Bliss, Solid Sunflower (N)	The following new product lines were added to the scope of the certificate: Solid Universe (N), Solid Bliss, Solid Sunflower (N) Product removed from the scope: Evermoin Ultra bright, Evermoin Limpio, Solid Champagne, Tempest Adamantine
SCS-RC-09257	Conforms to SCS Recycled Content Standard V7-0 for a Minimum 6% Pre-Consumer Recycled Resin and Chip Content . The material quantification and mass-balance calculations are completed on a dry- weight basis.	MINIMUM 6% RECYCLED CONTENT PRE-CONSUMER	Solid Surfaces	Staron® Solid Surfaces: Solid Pure White (S)	New Certificate

Certificates listed above are valid from 08/01/2023 to 07/31/2024

Authorized Signatures

AUDITOR SIGNATURE			
I attest that the assessment and analysis of the submitted information is complete and accurate to the best of my knowledge.			
Auditor Name, Title	Hanna Amare, Technical Specialist		
Signature		Date	07/21/2023
AUTHORIZED SCS REVIEWER SIGNATURE			
I attest that the assessment and analysis of the submitted information I reviewed during this review is complete for the purposes of the final recommendation and is accurate to the best of my knowledge, and this decision is final.			
SCS Reviewer Name, Title	Youssra Elkhatib, Program Manager		
Signature		Date	8/11/2023

Assessment Checklist

1. Material Classification and Waste Stream Analysis

REQUIREMENT	AUDITOR FINDING
<p>a) The recycled material(s) used in the product(s) continue(s) to meet the definitions of recycled material from the SCS Recycled Content Standard.</p> <p>Any changes to the recycled material(s) used since the previous assessment have been reported and SCS confirms they continue to meet the definitions of recycled material from the SCS Recycled Content Standard. DRF Reference: #7</p>	<p><input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR</p>
<p>Auditor Notes: Lotte meets the requirements of the SCS Recycled Content Standard. No changes have been made to the recycled materials since previous assessment.</p>	
<p>b) Any changes to the waste stream source(s) of recycled materials used in the product(s) have been reported. Any new waste stream sources are known or can be justified in accordance with the SCS definitions with pre- and post-consumer waste. DRF Reference: #8</p>	<p><input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR</p>
<p>Auditor Notes: No changes to the waste stream source of recycled materials were reported by the client. The Staron plant used PMMA waste purchased from S Polytech only and did not used material purchased from Yeosu plant.</p>	

2. Chain of Custody Requirements

REQUIREMENT	AUDITOR FINDING
<p>a) The client has reported any changes to its system for maintaining a chain of custody of recycled materials and the system to segregate recycled and non-recycled materials. These systems remain effective. DRF Reference: #3</p>	<p><input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR</p>
<p>Auditor Notes: No changes were reported for maintaining chain of custody throughout the manufacturing processes and the system remains effective.</p>	
<p>b) The client has described any changes to the manufacturing process at the manufacturing site(s) (or provided an updated flowchart). The updated description continues to show how recycled materials are tracked and how a chain of custody is maintained. It continues to describe (or show) all inputs of materials, all internal material flows (e.g., reuse or recycling of scrap), and all material outputs (including, but not limited to, finished products, intermediary products, and waste). DRF Reference: #2</p>	<p><input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR</p>
<p>Auditor Notes: No changes have been made to the manufacturing process that could affect the recycled content percentage.</p>	

3. Supplier Affidavit Evaluation and Waste Stream Analysis

REQUIREMENT	AUDITOR FINDING
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<p>a) The client has provided signed SCS affidavits from all new suppliers providing $\geq 2\%$ of total recycled material by weight. Signed affidavits have been received from suppliers accounting for at least 95% of recycled material by weight.</p>	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
<p>Auditor Notes: Lotte did not add any new suppliers during the data review period and provided updated suppliers affidavits for existing suppliers.</p>	
<p>b) The client has reported any changes to their vendor selection process and supplier requirements. DRF Reference: #9</p>	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
<p>Auditor Notes: No changes have been made to the supplier selection process or supplier requirements since the previous year's assessment.</p>	
<p>c) All new suppliers have been qualified as acceptable and none have been identified as posing a high risk.</p> <p>Risk is based on completeness of affidavit form provided, geographic locations, reputation, and/or waste stream source. DRF Reference: #8</p>	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
<p>Auditor Notes: Lotte meets the requirements of the SCS Recycled Content Standard. All previous suppliers are acceptable and do not pose a high risk.</p>	

4. Product Categorization and Mass Balance

REQUIREMENT	AUDITOR FINDING
<p>a) The client has reported any changes to its bill of materials (BOM) or equivalent documentation that describes the dry weight of each component in a single production unit.</p> <p>This documentation continues to correctly identify the dry weight of virgin, pre-, and post-consumer recycled material in a single production unit. DRF Reference: #4</p>	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
<p>Auditor Notes: Changes to the bill of materials were reported by Lotte. Updated BOMs are saved on file and claim language has been updated accordingly.</p>	
<p>b) The client has reported any changes to their mechanism for controlling the product formula. DRF Reference: #5</p>	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
<p>Auditor Notes: No changes have been made to the mechanism in place for controlling product formulas since the previous year's assessment.</p>	
<p>c) Products can be accurately grouped to make the following claim.</p>	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
<p>Type of claim: MINIMUM CONTENT Lotte will be issued seven certificates for varying minimum pre-consumer recycled glass, recycled resin and chip content.</p>	

<p>d) A mass balance demonstrates that there are sufficient supplies of recycled material to meet reported production.</p> <p>Purchases, inventory, waste, scrap, material transfers, product formulations, and relevant formulations have been factored in, when applicable. DRF Reference: #4,6,7 and 8</p>	<input checked="" type="checkbox"/> Compliant <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
<p>A mass balance is conducted to compare the amount of material that is available for consumption to the amount of material required for production.</p> <p>Auditor Notes:</p> <p>Staron: Lotte reported a total of 62,964 kgs for gross production of certified product. Based on the bill of materials, 4,350 kgs of Recycled Resin and Chip was required to meet the reported gross production. A mass balance calculation was conducted using the reported consumption resulted in a -310% error. This indicates a significant surplus was left over for use in the non-certified products. There was more than enough recycled glass available to meet reported production. The excessive amount of surplus recycled material can be accounted for scrap during the manufacturing process.</p> <p>Radianz: Lotte reported a total of 2,791,052 kgs for gross production of certified product. Based on the bill of materials, 417,357 kgs of recycled glass was required to meet the reported gross production. A mass balance was conducted to compare the amount of material that is purchased to the amount of material required for production and resulted in a -5.2% error. This indicates that there was enough recycled material available to meet reported production.</p>	

5. Summary of Key Findings

Key: NCR = Non-Conformance Report; NIR = New Information Request; OFI = Opportunity for Improvement

NCR/OFI/NIR NUMBER	DOCUMENT OR STANDARD REFERENCE	OBJECTIVE EVIDENCE/FINDING	REQUIRED CLIENT RESPONSE DATE	STATUS
LOT-OFI-001	SCS Recycled Content Standard, V7.0, Section 5.2.2.6.	Mass balance calculation for Lotte shows a high negative percent error. Client is encouraged to track material usage for certified product separately to allow a more accurate mass balance calculation.	N/A	N/A