



Dematerialization Certification

**Standard Audit Plan
April 2024**



1.0 Background

A dematerialization focused design and manufacturing of a product or packaging demonstrates an organization’s commitment to utilize materials and develop products that consume less material over its lifespan or utilize fewer materials within the product or its packaging. A Dematerialization Certification highlights how a product is consuming less material than a comparable product or previous version.

GreenCircle Certified, LLC’s (GreenCircle’s) s Dematerialization Certification demonstrates that a company is delivering the same or comparable product with maximized resource effectiveness by reducing the mass or material types in the product. This is determined by the reduction of total material throughput of any product and service, and thus the limitation of its environmental impact. This includes reduction of raw materials at the production stage, of energy and material inputs during the product lifecycle, and of waste at the disposal stage.

GreenCircle will conduct the audit for Dematerialization Certification in accordance to the requirements and methods set forth in this audit plan and in GreenCircle’s Certification Scheme; in compliance with ISO17065:2012. As part of GreenCircle’s evaluation process, GreenCircle will obtain a complete understanding of the product(s) or packaging’s bill of material/recipe(s) and material use over its life span to determine the amount of dematerialization as compared to another product. GreenCircle will also obtain a complete understanding of the product’s bill of materials or product recipe, product use, customary disposal methods, and recyclability (if applicable). Using this methodology, GreenCircle will then provide a certified percentage of dematerialization as compared to another product.

2.0 Goal

The goal of a Dematerialization Certification is to verify that a product is consuming less materials or there is a reduction of material sent to landfill at end-of-life as compared to a previous version of the product, or a competitor’s product. Product waste streams should be disposed of properly per local guidelines. GreenCircle references the Federal Trade Commission’s Green Guides for this certification.

3.0 Company Qualifications

Companies who manufacture re-designed products or deliver the same or comparable product with reduced mass or material types are eligible for a dematerialization certification. During the proposal development process, GreenCircle will conduct initial meetings with the client to understand the products, raw material is being used and material inputs for the life span of the product to verify if the proposed materials and



process will qualify for an audit and a possible certification. It is not guaranteed that a product will be certified for dematerialization until a thorough audit is completed by GreenCircle.

4.0 Documentation Requirements

To qualify for certification a company must have at least six months of data, preferably twelve months, from the past year that clearly describes and includes:

- Product recipe(s) detailing the amount and type of raw materials used to manufacture the product (percent by weight basis) or packaging. This will need to include the type of each raw material.
- Product recipe(s) detailing the amount and type of raw materials used to manufacture the previous product (percent by weight basis) or packaging.
- Documentation outlining how the product, or packaging, will be reducing the material used over its lifespan.
- Description of material inputs and/or outputs used over the life of product
- Description of material inputs and/or outputs used over the life of the previous design or competitor's product design

5.0 Audit and Certification Process

5.1 Data Collection

Once the proposal and certification agreement are signed by the client, GreenCircle will prepare a data request and conduct a conference call with the contact(s) at each manufacturing facility to discuss the required data, GreenCircle's audit process, and project schedule. GreenCircle will complete data collection and a desk analysis of the initial data collected. See the Documentation Requirements above for specific data that will be requested in the data collection stage.

5.2 Calculations

GreenCircle will conduct a thorough review of the actual bill of material or product recipe(s) for the specified product to be certified and the product to be compared.

After completion of the GreenCircle dematerialization audit process, GreenCircle will certify a product's dematerialization by weight basis as compared to the specified comparable product. GreenCircle will require the use of footnotes and/or additional explanations be documented with the certification.



5.3 Certification Audit Deliverables

Upon verification of the dematerialization claims, GreenCircle will issue GreenCircle Certified, LLC Certificates and Mark for the specified product manufactured at a specific facility. The certificate will document that an independent evaluation of the dematerialization claims has been conducted on behalf of the client for the specified product(s). All certificate holders must notify GreenCircle Certified, LLC of any significant changes in products or operations that could alter any of the claims detailed in certification.

GreenCircle will prepare a written report on the audit process and findings and provide this report to the Client. GreenCircle will also list the final certificates on the GreenCircle Certified Product Database and provide GreenCircle Marks for use in marketing.

6.0 Annual Recertification Process

All certified claims are recertified annually. It is important for GreenCircle to evaluate any changes within the product, operations, or manufacturing processes to ensure continued compliance with the established criteria. If the client is able to confirm that no changes have occurred, DM certifications are eligible for reverification without analysis for an additional two years. This will include any information of supplier variability, changes in source location, etc. The completion of recertification ensures continued transparency and further use of the GreenCircle mark.

7.0 Complaints, Appeals and Disputes

GreenCircle must be contacted immediately if there is a complaint, appeal and or dispute brought against a certification that GreenCircle has verified. GreenCircle will follow the Appeals, Complaints and Disputes procedure to review and resolve the issue.

8.0 Guidelines for Private Label User

The Renewable Resource or Bio-based Content Certification is for the exclusive use of the client. Companies that produce private label products will require any private label customers or downstream re-sellers of the certified product(s) who desire to utilize the GreenCircle Renewable Resource or Bio-based Certification, to enter into a separate Licensing Agreement with GreenCircle regarding the use of the GreenCircle Mark on



private label product and promotional materials. Please contact GreenCircle directly for more information.

9.0 Labeling Requirements

The Client agrees to promptly cease display and use of the GreenCircle Certified, LLC mark: (1) Upon expiration of the certification period; (2) If Client is no longer in compliance with the certification requirements in this audit plan or the GreenCircle terms and conditions Please reference the GreenCircle Certified Mark Usage Guidelines for further details and more information on using the mark. The Client shall take caution to ensure that the GreenCircle Certification mark is not associated with products and/or operations which do not comply with the GreenCircle Certification Scheme (GCCS). The Client will be asked to remove the GreenCircle mark immediately if it is found that they have applied the mark on a non-conforming GCCS product and/or operation. If the Client fails to remove the misused mark, an investigation will be conducted pertaining to the misuse, in which the full cost of the investigation shall be borne by the Client. The Client shall not allow the GCCS Certification mark to remain on non-conforming products offered for sale. Such action could invite prosecution under U.S. Trademark statutes or attract other penalty provisions in other U.S. or State law.

10.0 Key Terminology

Audit Plan: Specifies how GreenCircle intends to conduct a particular audit. Our audit plan describes the activities we intended to carry out in order to achieve our audit objectives.

Certification Period: A six month or preferably twelve-month period in the recent past in which GreenCircle identifies at the beginning of each certification. During this period, GreenCircle will collect various documentation needed to certify the specific claim.

Component: A constituent part of something (such as a system or mixture).

End of Life: The stage in a product's life cycle where the product is no longer used for its intended function.

Material Inputs: All incoming materials required for the operation of the product, over the life span of the product.

Material Outputs: All outgoing materials or products for the life span of the product.



11.0 Reference Documents

The Federal Trade Commission’s Green Guides (2012) - Guides for the Use of Environmental Marketing Claims, 2012.

GreenCircle Certification Scheme, GCC-OPS-03-1, Revision 6 – Outlines the certification process and GreenCircle’s Management System

ISO17020: 2012 Conformity assessment -- Requirements for the operation of various types of bodies performing inspection, The International Standards Organization. This International Standard defines the requirements for the operation of various types of bodies performing inspection. GreenCircle adheres to these requirements in the development of the certification process and audit plans.

ISO 14021:2016 Environmental labels and declarations -- Self-Declared environmental claims (Type II environmental labeling), The International Standards Organization

ISO 17065:2012 Conformity assessment -- Requirements for bodies certifying products, processes, and services, The International Standards Organization. This International Standard defines the requirements for bodies certifying products, processes and services. GreenCircle adheres to these requirements in the development of the certification process and audit plans.

Amendment History

Date	Issue	Summary of Amendments
5/1/2022	Rev. 0	Official issue date of document.
4/1/2024	Rev.1	Update for compliance to Certification Scheme

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