

THIRD-PARTY CERTIFICATION

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WHAT IS THIRD-PARTY CERTIFICATION?

Third-party certification is a transparent process by an independent body who provides an unbiased verification of a company's sustainability claims. Third-party certification requires a complete audit of a company's processes and products to determine compliance with international standards.





WHY IS THIRD-PARTY CERTIFICATION IMPORTANT?

Third-party certification is essential to both companies and consumers. Certifying your claims can protect your business from greenwashing allegations and from Federal Trade Commission (FTC) compliance issues. Third-party certification is the new way to do business.

RECYCLED CONTENT HAS THE HIGHEST RISK FOR FRAUDULENT CLAIMS

The marketplace is full of products with recycled content claims, but Post-Consumer Resin (PCR) bears the highest risk for fraudulent claims. These greenwashing claims have allowed companies to sell manufacturers "recycled content" that is not recycled. It has become increasingly difficult for companies seeking PCR to be certain that they are buying genuine post-consumer material. False claims amplify risk to all participants in the recycling market, especially buyers' confidence in recycled content claims.

FACT: Only <u>9 percent</u> of discarded plastics are actually being recycled globally, which means the commitments to incorporate recycled content in products exceed the actual supply of PCR.



CONSUMER RESEARCH: THIRD-PARTY CERTIFICATIONS MATTER MORE THAN EVER

Millennials and Gen Z's Purchasing Decisions are Influenced by a <u>Brand's Honesty about the Environmental Attributes of their Products</u>:





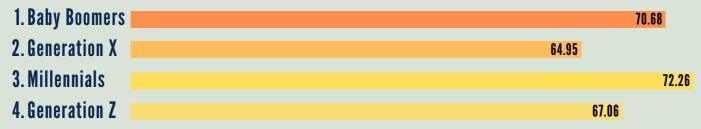


responded that if they found out that a product was not honest about an environmental issue they would either not buy that product, choose an honest alternative, or hold off buying to do more research.

DON'T GET LEFT BEHIND.

Choosing not to take this research into consideration can hurt your business long-term. Millennials and Gen Z make up almost half of the U.S. population and have enormous buying power that will just keep growing. Not only do Millennials and Gen Z want brands to be more sustainable, they also want proof. Third-party certification is the best way to meet their needs and turn sustainability into sales.

Generations by Population - United States (Millions):



FACT: Millennials and Gen Z combined make up 139.32 million people in the United States. This is 42% of the total U.S. population.

Generations by Buying Power (Trillions):



FACT: Millennials and Gen Z have a combined buying power of \$1.5 trillion and that number will continue to grow every year.

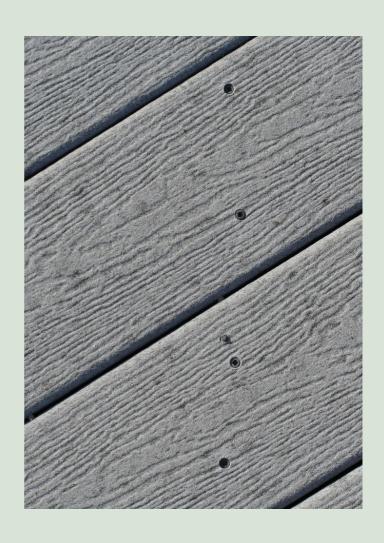
WHAT ARE THE BENEFITS OF THIRD PARTY CERTIFICATION?

FEDERAL TRADE COMMISSION (FTC) COMPLIANCE

The FTC specifically works for consumers to prevent fraudulent, deceptive, and unfair business practices. The FTC's Green Guides provide guidance for marketers on how to qualify their environmental claims and how they can substantiate their claims.

GreenCircle's certification is consistent with the Green Guides and is verified to FTC standards.

The FTC takes environmental claims very seriously and has filed charges against many businesses for misleading customers about the environmental attributes of their products. For example, the FTC filed multiple charges against American Plastic Lumber, Inc. for stating that their plastic lumber contained 100% post-consumer recycled content when their products actually contained less than 79% post-consumer recycled content on average, and some products contained no recycled content at all.



DEMONSTRATES BRAND INTEGRITY

GreenCircle has always certified on a per plant, per product basis because this is the most accurate way to reflect the sustainability of a product and assure accountability. Obtaining GreenCircle certification demonstrates a brand's commitment to sustainability.

BUILDS CONSUMER TRUST

Recycled content has the highest risk for fraudulent claims. Companies who take the extra step to obtain GreenCircle certification are not only ensuring that their claim is valid, they are also setting the standard for transparency in their industry.



WHAT ARE THE BENEFITS OF THIRD PARTY CERTIFICATION?

ESTABLISHES COMPETITIVE ADVANTAGE

According to a <u>Futerra Report</u>, the majority of Millennial and Gen Z respondents stated that if they discovered a product was not honest, they would choose an honest alternative. Also, Millennials and Gen Z are becoming the next generations of specifiers, procurement professionals, and decision makers. Not only do they want honest sustainable products for their personal lives, they also understand the value of choosing sustainable products in their professional careers. GreenCircle certification provides tangible proof to consumers and gives companies an edge over competitors who have unsubstantiated claims.



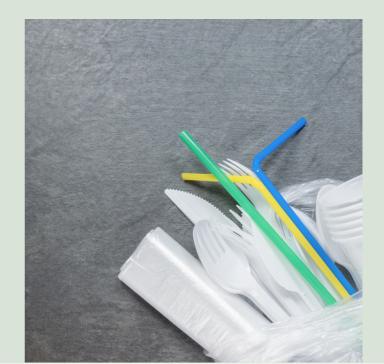


MEETS SUSTAINABLE PURCHASING REQUIREMENTS

Sustainable purchasing and supply chain requirements are being developed by many companies, government agents, and purchasing agents. Many of these entities require third-party certifications to verify that claims are accurate. GreenCircle certification can ensure that you meet these sustainable purchasing requirements.

DRIVES CONTINUOUS IMPROVEMENT

As a by-product of certification, companies will be creating powerful benchmark data. This data is the foundation for measuring progress and supports achieving sustainability goals. Many companies have goals to increase recycled content in their products or to sell higher percentage recycled materials. Your initial GreenCircle Recycled Content certification serves as a baseline for driving continuous improvement towards your goals.



WHAT IS PRE-CONSUMER RECYCLED CONTENT?

Pre-consumer recycled content consists of materials that are diverted from the waste stream during the manufacturing process. When defining pre-consumer recycled content, it is important to note that any internal materials that are recycled in the same process do not count as recycled content. Many manufacturers think they can make claims that their products contain recycled content because they are integrating scrap materials back into the same manufacturing process, but this is not an acceptable claim based on ISO 14021.

WHAT IS POST-CONSUMER RECYCLED CONTENT?

Post-consumer recycled content is material generated by households or by commercial, industrial, and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

Both pre-consumer and post-consumer recycled content can be used in products. However, some green building standards give more credit for post-consumer material.

FACT: It is very difficult to produce a product made of 100% recycled content. Many times, products will need to incorporate other materials like additives, pigments, adhesives, or labels which could affect the percentage of recycled content in the product.

Any amount of recycled content in a product is a great achievement and a step in the right direction, especially toward driving the circular economy.

POST-CONSUMER RECYCLED CONTENT IS THE KEY TO DRIVING THE CIRCULAR ECONOMY

Recycling pre-consumer materials is a good practice, but most pre-consumer materials are already being utilized and claimed as recycled content. In order to meet sustainability goals and satisfy recycled content commitments, companies must focus on incorporating post-consumer recycled content into their products.

On page 2, we mentioned that only 9 percent of post-consumer plastics are recycled globally, which means that there is an extremely large percentage of valuable, post-consumer plastic that is not being reclaimed, processed, and utilized in products.

Because of this, it is essential for companies who have made commitments to include recycled content in their products to pursue genuine post-consumer material. There are multiple reclaimers who are solely focused on recycling post-consumer materials, which not only increases the supply of post-consumer resin, but it also creates jobs and drives the circular economy.

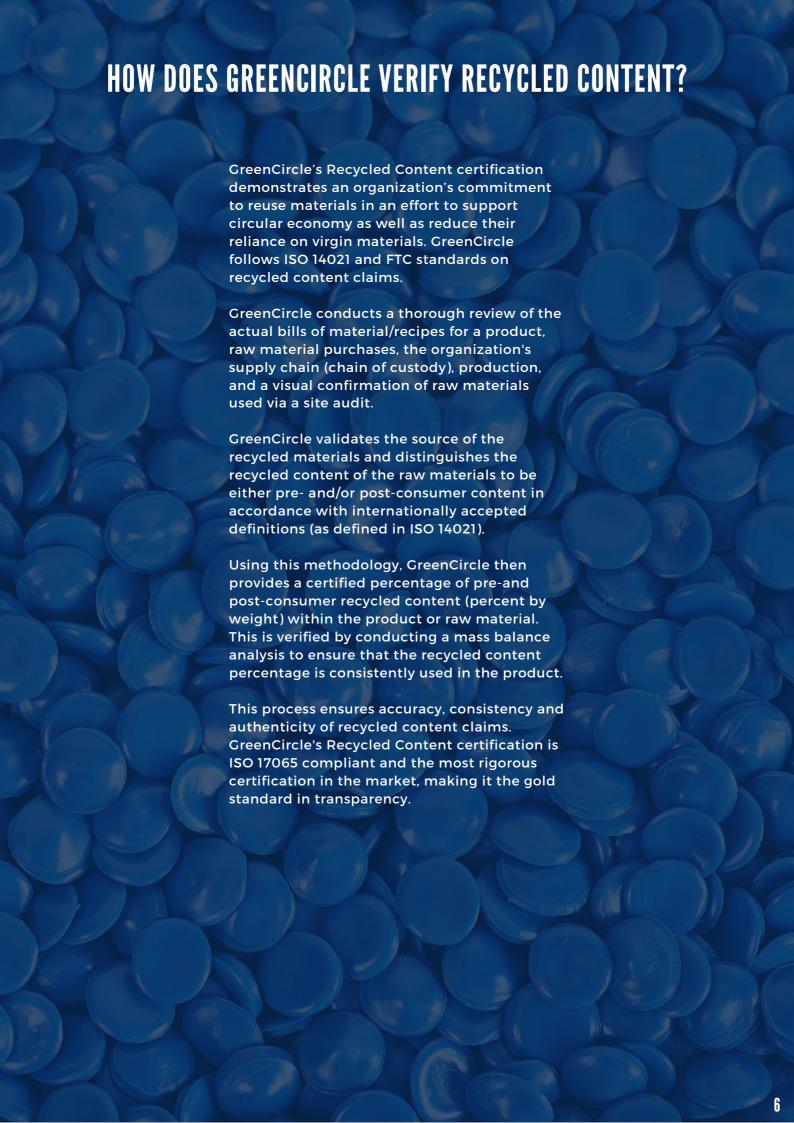
It is extremely important to minimize contamination in the collection process and to also make sure that all post-consumer materials used in your products are third-party certified to ensure that you are using verified post-consumer content.

To learn more about this topic, listen to the podcast episode we recorded with Steve Alexander, the President and CEO of the Association of Plastic Recyclers (APR).



Tad Talks Sustainability Podcast:

Designing Recyclable Packaging
with Steve Alexander from APR



GREENCIRCLE'S RECYCLED CONTENT VERIFICATION PROCESS

Our ISO 17065 compliant process ensures that recycled content claims are accurate, truthful, and consistent.

1 REVIEW

Review product Bill of Materials (BOM) and product recipes.

Q 2 AUDIT & VERIFY

Audit and verify recycled content from suppliers using a chain of custody process.

3 COLLECT PURCHASING RECORDS

Collect purchasing records as evidence of recycled content use.

4 CONDUCT SITE VISIT

Conduct site visit to audit and verify use of recycled materials.

MASS BALANCE ANALYSIS

Conduct mass balance analysis to verify consistent use of recycled materials.

REVIEW WITH CLIENT

Review recycled content audit findings with client.

ISSUE CERTIFICATES

Issue certificates for pre-and postconsumer recycled content (percent by weight) within the product or raw material.

Publish & MARKETING
Publish certificates on

GreenCircle's Certified
Product Database and
provide marketing support.

7



WHY IS IT IMPORTANT TO VERIFY THE RECYCLED CONTENT MATERIALS FROM SUPPLIERS?

Verifying the recycled content of materials from suppliers is essential to ensure that the recycled content claim is consistent for all products produced. GreenCircle has a rigorous chain of custody process to document and certify recycled content materials. This includes a close inspection of the product recipe to understand whether the material is pre- or post-consumer, as well as to understand the source of those materials. This process assures that you are buying genuine post-consumer material.

WHAT IS A MASS BALANCE AND WHY DOES IT MATTER IN THE VERIFICATION PROCESS?

Mass balance is another important step in this process. GreenCircle analyzes the total amount of products produced and the total amount of recycled content materials purchased and utilized each month. This data helps GreenCircle verify that sufficient quantities of recycled content materials were purchased to meet the recycled content claim on a consistent basis. Consistency of the claim is critical to maintaining FTC compliance. GreenCircle certifies to a minimum recycled content based on the results of the mass balance.

RECYCLED CONTENT VS RECYCLABLE MATERIAL - WHAT IS THE DIFFERENCE?

RECYCLED CONTENT - DEFINITION

Proportion, by mass, of recycled material in a product, material, or packaging. Only preconsumer and post-consumer materials shall be considered as recycled content.

WHAT IS A RECYCLABLE MATERIAL?

Closing the loop on materials is very important. Companies that integrate recycled content, especially post-consumer materials, help drive a continuous circular process. However, it is essential to note that not all materials can be considered recyclable based on the current waste management infrastructure within the U.S.

In order for a material to be recyclable, especially packaging, it requires careful consideration during the design process to minimize contaminants and ensure that the material will be accepted and properly sorted for recycling in a Material Recovery Facility (MRF).

The <u>FTC's Green Guides</u> require that a product be able to be recycled within 60% of the current U.S. infrastructure in order to be considered "recyclable."

Typical materials that are readily recyclable include water bottles and beverage containers manufactured out of PET (#1), and milk jugs and detergent bottles manufactured out of HDPE (#2). According to the State of Curbside Recycling 2020 Report, polypropylene containers (#5) such as yogurt cups and butter tubs should increasingly become a core collected material in curbside programs. However, some restrictions to recycling this product may apply due to the location in which you live, and it is important to understand what your local municipality will accept. For more information about plastics recyclability and the recycling industryaccepted criteria for plastic package design, check out the Association of Plastic Recyclers Design Guide.

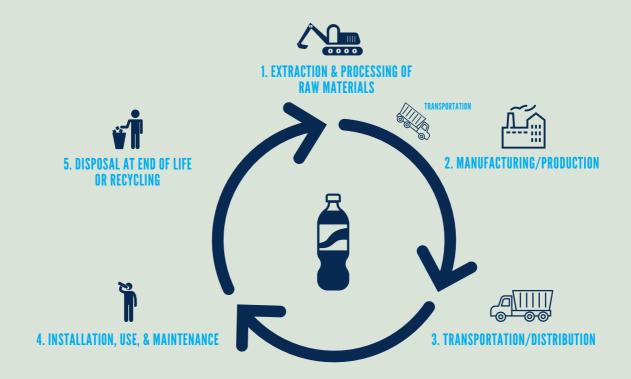
RECYCLABLE MATERIAL - DEFINITION

"Recyclable" is a characteristic of a product, packaging, or associated component that can be diverted from the waste stream through available processes and programs and can be collected, processed, and returned to use in the form of raw materials or products.

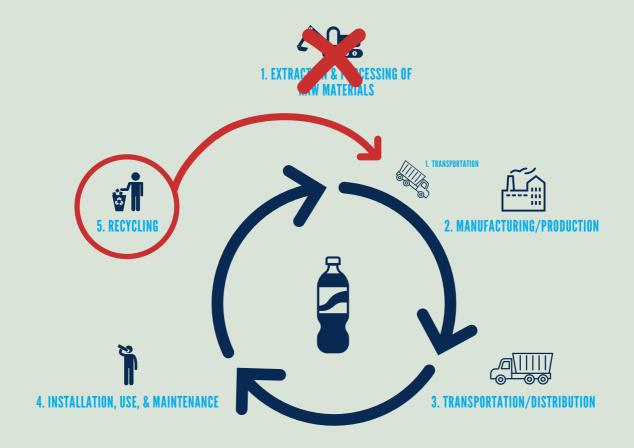


THE VALUE OF RECYCLED CONTENT AND REDUCING EMBODIED CARBON

PRODUCT LIFE CYCLE OF A PLASTIC BOTTLE

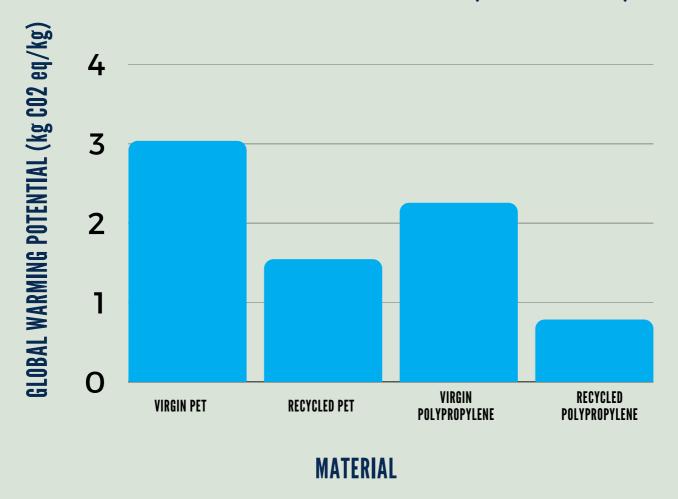


PRODUCT LIFE CYCLE OF A PLASTIC BOTTLE WITH RECYCLED CONTENT



THE VALUE OF RECYCLED CONTENT IN REDUCING EMBODIED CARBON

VIRGIN PLASTICS VS RECYCLED PLASTIC (LOWER IS BETTER)



THE VALUE OF RECYCLED CONTENT IN REDUCING EMBODIED CARBON AND DRIVING THE CIRCULAR ECONOMY

The life cycle diagrams above demonstrate the value of utilizing recycled content in order to reduce embodied carbon. By avoiding the use of virgin materials, all of the life cycle impacts of the extraction and processing phase of the raw materials are eliminated. Also, the life cycle impacts of extracting oil and natural gas for the chemical manufacturing process for virgin plastics are erased. These steps in the virgin plastic process contribute heavily to the carbon footprint of plastic.

In the product life cycle of a plastic bottle with recycled content, there will still be energy utilized to collect and transport the recycled materials, and to process the post-consumer plastics into usable flake or pellets. However, this requires significantly less energy to process these materials compared to manufacturing virgin plastic.

The graph above proves this by showing the associated reduction in global warming potential of virgin PET (#1) and polypropylene (#5) compared to recycled PET and polypropylene. Global warming potential is the measure of the carbon footprint or embodied carbon of the materials.

GreenCircle Certification System

GreenCircle Certified, LLC certifies that an independent, third-party evaluation has been conducted for:

Company Name



Product

City, State

This product meets all the necessary qualifications to be certified for the following claims:

XX% Recycled Content

Minimum XX% Pre-Consumer Content Minimum XX% Post-Consumer Content

Certification Period: Month day, year - Month day, year Certification Number: xx-xxxx

Referenced Standards: ISO14021 and FTC Green Guides

Tad Radzinski, PE, LEED AP, SFP

taa Kaazinski, PB, LBBD AP, SFP Certification Officer



GREENCIRCLE'S RECYCLED CONTENT CERTIFICATE

At the end of each project, GreenCircle issues recycled content certificates that qualify the minimum pre- and post-consumer recycled content in each product. These unique certificates are featured on our <u>Certified Product Database</u> where they can be publicly accessed. GreenCircle's Recycled Content certificates serve as tangible proof of the recycled content material in our client's products and demonstrate our client's commitment to transparency.

Our certifications are valid for one calendar year, which is noted with specific dates under "Certification Period." GreenCircle conducts an annual recertification to verify that the recycled content claim remains consistent, and to ensure that our clients are always in compliance with the FTC. Certifying annually also helps our clients drive continuous improvement in their products and processes.

GREENCIRCLE'S CERTIFIED ENVIRONMENTAL FACTS MULTI-ATTRIBUTE LABEL

As our clients begin to achieve multiple certifications for different claims, they can display all of the sustainability information for their product or facility in our Certified Environmental Facts Multi-Attribute label (pictured below). Our Certified Environmental Facts label is as easy to read as a nutrition label, and it is the most transparent multi-attribute label in the industry.

GREENCIRCLE'S CERTIFIED ENVIRONMENTAL FACTS (CEF) LABEL ADDRESSES RECYCLED CONTENT

Certified Environmental Facts® Company: Company Product: Product Name Facility Location: Facility Location Certification Period: Month X, 20XX - Month XX, 20XX Certification Number: XX-XXXX **Product Specific:** Total Recycled Content^{1,2} 9/ Pre-Consumer: Post-Consumer: % Regional Raw Material Sourcing Product Optimization⁴ Embodied Carbon Reduction⁵ % 2013 (kgCO₂eq per yd²) 2017 (kgCO₂eq per yd²) **Acidification Reduction** % **Eutrophication Reduction Smog Potential Reduction** % Carbon Neutral⁶ Yes Take Back Recycling Program² Yes Closed Loop Product⁷ **Biobased** 0% Recyclable⁸ 0% Published Environmental Product Declaration (EPD) **Green Label Plus Low-Emitting Materials Material Ingredient Reporting:** Verified Manufacturer Inventory (MIR) Verified Health Product Declaration (HPD) Verified Declare Label¹⁰ Manufacturing Specific 11: Carbon Emissions Reduction¹² 0% 2013 (total metric tonnes CO₂eq): 2018 (total metric tonnes CO₂eq): **Carbon Emissions Neutral** Yes **Energy Usage Reduction** 0% 2013 (total MJ): 2018 (total MJ): 0% Renewable Energy Usage¹⁵ 2013 (total MJ): 2018 (total MJ): **Water Usage Reduction** 0% 2013 (total gallons): 2018 (total gallons): **Outgoing Waste to Landfill Reduction** 0% 2013 (total lbs): 2018 (total lbs): Waste Diversion from Landfill¹⁴ % ISO 14001 Certified Yes ISO 9001 Certified Yes Baseline Period: Month 20XX - Month 20XX Evaluation Period: Month 20XX - Month 20XX For more information on the Certified Environmental Facts of this product. please contact: info@GreenCircleCertified.com. www.GreenCircleCertified.com ributes in green contribute to LEED v4 and v4.1 credits 1. The minimum pre-consumer, post-consumer, and total recycled content across all product recipes is listed. 2. This meets the requirements of LEED v4 and v4.1 MR Credit: Sourcing of Raw Mate 3. Raw materials sourced from tier one suppliers within a 500-mile radius of the manufacturing facility. 4. This meets the requirements of the LEED Materials and Resources Building Product Disclosure and Optimization – Environmental Product Delaration and Multi-Attribute Optimization. This contributes two products or 200% of material cost under LEED v4.1. 5. Product carbon footprint is based on a product recipe calculated using the sales-weighted average for varn 5. Product carbon footprint is based on a product carbon footprint is based on a product carbon footprint is based on a product carbon footprint is defined carbon offsets, BV North America conducted an independent audit of the GHG Protocol Product Standard Report. The scope is raw material extraction to disposal. 7. This meets the requirements of the LEED Circular Products Pilot Credit. 9. This meets the requirements of LEED v4 and v4.1 MR Credit: Building Product Disclosure and Optimization 10. This meets the requirements of LEED v4 and v4.1 MR Credit: Building Product Disclo Material Ingredients. This attribute contributes 1 product under LEED v4 and v4.1. 11. All reductions benchmarked to production. Third-party review of manufacturing reductions contributes to

12. Scope 1 and 2 emissions only. Carbon emissions reductions and total metric tons of CO2eq calculated using a market-based approach and financial instruments.

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13. Includes purchase of wind RECs and purchase of directed biogas14. Includes both hazardous and non-hazardous material streams.

Every attribute on our label is third-party verified in accordance with applicable standards and is specific to your product and operations.

RECYCLED CONTENT

EMBODIED CARBON REDUCTION

CARBON NEUTRAL

TAKE BACK RECYCLING PROGRAM

CLOSED LOOP PRODUCT

BIOBASED

RECYCLABLE

Every attribute for building products in green font contributes to a LEED credit.

Specific LEED credits are called out in the footnotes on the label.

GREENCIRCLE CERTIFIED IS RECOGNIZED BY THE FOLLOWING ORGANIZATIONS:

CLIMATE PLEDGE FRIENDLY	GreenCircle is included in Amazon's Climate Pledge Friendly Program to certify products on Amazon that meet sustainability standards and help preserve the natural world.
Shop Sustainably	GreenCircle is partners with Wayfair to make it easier for consumers to shop all things home, sustainably.
The Association of Plastic Recyclers	GreenCircle is endorsed by APR as a third-party certifier for the APR PCR Certification Program.
TO STATE OF TO STA	
TOP	GreenCircle is recognized by the the U.S. Federal Government as a Tier 1 recommended Ecolabel for all federal purchasing.
GSA	
PSO B C	GreenCircle is a recognized certification body by the United States Green Building Council (USGBC) and our certification is included in multiple LEED Credits.
Home Innovation RESEARCH LABS	GreenCircle is a recognized certification body by the Home Innovation Research Labs for the National Green Building Standard (NGBS).
Pennsylvania Recycling Markets Center Keystone of Circular Economy	GreenCircle is a partner with Pennsylvania RMC and coordinates regularly with the center to stay on the cutting edge of material recovery and plastics recycling.
SUSTAINABLE PURCHASING LEADERSHIP COUNCIL	GreenCircle is a founding member of the Sustainable Purchasing Leadership Council.
APPROVED VERIFIER	GreenCircle is an approved verifier for the Health Product Declaration Collaborative.
certified WBEN® WOMEN'S BUSINESS ENTERPRISE	GreenCircle is a certified WBENC Woman Owned Business.

GREENCIRCLE SALES TRAINING

We understand that you want to get the most out of your investment in GreenCircle certifications. This is why we provide a 1-hour training webinar to educate your sales team on your GreenCircle certification, market drivers in your industry, and how to use your GreenCircle certification to make sales. We record the webinar and deliver the recording to you for your future training needs. We believe that it is essential to teach your sales team how to use your GreenCircle certification to turn sustainability into sales.





GREENCIRCLE MARKETING SUPPORT

We know that you might feel lost when it comes time to communicate your certification achievements. This is why we offer marketing support to help you effectively communicate your GreenCircle certification. Our dedicated marketing team is available for the duration of your certification to assist with copy writing for press releases, script writing, infographic development, website updates, case studies, social posts, and your own company profile that highlights your sustainability story on our Brands You Can Trust website page.

GREENCIRCLE BRANDS YOU CAN TRUST

According to a Shelton Group report, 90% of millennials buy from a brand when they trust that brand's environmental and social business practices. GreenCircle is proud to cultivate multi-layered trust. Our clients can trust that our certifications are rigorous and accurate and, in turn, their customers can trust their business and claims. GreenCircle recognizes and champions our clients for going the extra mile to validate their claims. Every company that is certified by GreenCircle is a brand you can trust.



LOOKING FORWARD

Recycled content will continue to be a major aspect in the evolution of sustainable products. Incorporating recycled content into your products is essential to reducing embodied carbon and reducing your company's environmental impact. Going forward, companies who make unsubstantiated recycled content claims will be left behind. Millennials and Gen Z consumers want proof of the environmental attributes of your products and third-party certification is essential for gaining consumer trust. Put your brand ahead of the competition and get certified.

NEED HELP CERTIFYING RECYCLED CONTENT?

Contact Ryan Heins

Account Manager

Phone: 610-569-1047 x119

 ${\bf Email: Ryan@GreenCircleCertified.com}$

www.GreenCircleCertified.com



NOT READY FOR CERTIFICATION? SUSTAINABLE SOLUTIONS CORPORATION CAN HELP!

Interested in incorporating recycled content into your products but don't know how? Our sister company, Sustainable Solutions Corporation (SSC), can help! SSC's Life Cycle Assessment (LCA) and Sustainable Product Innovation (SPI) programs are embedded into a company's stage-gate or new product development process and enables product teams to consider alternative materials, processes, sourcing, and other aspects of a product. SSC has had great success helping clients find reliable sources of PCR for use in the manufacturing of products, and has provided the training and tools to help new product development teams integrate that PCR into products.

NEED HELP WITH LCA OR SPI?

Contact Nicole Meyer

Account Manager

Phone: 610-569-1047 x116

Email: Nicole@SustainableSolutionsCorporation.com

www.SustainableSolutionsCorporation.com



RESOURCES



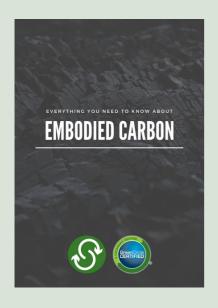
CHECK OUT OUR PODCAST EPISODES!

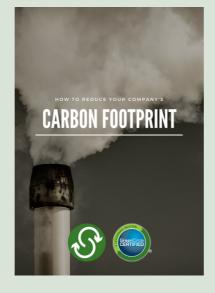
Tad Talks Sustainability Podcast is hosted by sustainability expert, Tad Radzinski, and his daughter, Julianna Radzinski. During our episodes, Tad clearly explains everything you need to know about sustainability to help your company optimize your sustainability strategy and reach your goals. Tad offers tips for reducing embodied carbon and operational carbon, designing sustainable products and packaging, setting sustainability goals, and so much more.

Click here to listen:

- Apple Podcasts
- Spotify
- More Places to Listen

OTHER DOWNLOADABLE DOCUMENTS







FOLLOW US! CLICK THE ICONS BELOW.

GREENCIRCLE CERTIFIED









SUSTAINABLE SOLUTIONS CORPORATION









SOURCES

- 1. Resident Population in The United States in 2020 By Generation
- 2. <u>Baby Boomer Spending Power</u>
- 3. Spending Across the Generations: How Gen Xers Shop
- 4. Millennial Buying Power
- 5. Gen Z and The Future of Spend
- 6. Futerra Report
- 7. Shelton Group Report
- 8. FTC Brings Second Case This Year Against Plastic Lumber Products
- 9. Production, Use, and Fate of All Plastics Ever Made
- 10.2020 State of Curbside Recycling Report
- 11.FTC Green Guides
- 12. <u>Association of Plastic Recyclers Design Guides</u>



