



Braskem

Sector: Chemicals

Region: Based in Brazil, sold globally



[Braskem](#) is a Brazilian petrochemical company that produces thermoplastic resins and other petrochemicals, as well as a biopolymer of polyethylene made from sugarcane ethanol.

Braskem's sustainability claim is the I'm Green™ label that was created to help the identification of products that have [I'm Green™ Polyethylene](#) (hereafter Green PE) in its composition. Green PE is a polymer made from renewable feedstock of sugarcane ethanol, which has a lower carbon footprint when compared to conventional polyethylene, made from fossil materials. Green PE avoids emissions related to the production of fossil fuel feedstock, thereby providing a net saving of an equivalent of around [5 tonnes of CO₂](#) per tonne of PE by the end of the plastic manufacturing process. For the use of the label, products must follow criteria established by Braskem. End-user products that use Polyethylene in their composition usually include food packaging, cosmetics, beverages and bags, among others.

Mindset

Life Cycle Thinking: Environmental impacts are assessed for all stages from raw material extraction until the Green PE leaves Braskem sites; usage phase is not considered.

Hotspots Analysis: A Life-Cycle Assessment (LCA) showed that the majority of the potential environmental impacts of the Green PE were generated in the agricultural stages of sugarcane cultivation and harvesting. This led to the development of a sustainable ethanol supply platform, which creates a Code of Conduct for Ethanol Suppliers.

Mainstreaming sustainability: Through the Code of Conduct for Ethanol Suppliers, elaborated in consultation with internal and external stakeholders, Braskem aims to guarantee that its suppliers are committed to good practices regarding cane burning, respect for biodiversity, environmental practices, labour and human rights.



This infographic illustrates the production flow of the I'm Green™ Polyethylene, from the planting of sugarcane to the transformation of biopolymer in day-to-day products and their disposal.

Principle 1: Reliability



A Life Cycle Assessment (LCA) study conducted by a third party, and reviewed by a panel, confirms the lower carbon footprint of the Green PE and all trade-offs are transparently communicated. The performance of ethanol suppliers is audited by an external third party at least once every two years, based on Braskem's Code of Conduct for Ethanol Suppliers. Renewable content of each batch of the Green PE is measured using internationally accepted standards by external laboratories. The use of the label on products on retail shelves is verified through random tests that Braskem performs to check if the reported renewable content is actually present.

Trade-offs identified in the LCA study are transparently communicated in the LCA summary available on the website, which is accessed via a QR code embedded in the logo. LCA files and full reports are shared upon request.

The claim is built on a reliable basis and is based on a globally accepted methodology in the relevant scientific field. The LCA is ISO 14040 and 14044 compliant and reviewed by third parties. Renewable content is measured according to ASTM D 6866. The LCA was verified by a panel composed by experts from Institut für Energie- und Umweltforschung (Ifeu) – Germany and Michigan State University. Trade-offs identified in the LCA study could be communicated in other communication channels using non-technical language.



Principle 2: Relevance

The main feature of the product is the lower carbon footprint, around which communication is centered. The lower carbon footprint of the Green PE is fundamental in reducing the carbon footprint of the product manufactured using it.



The claim highlights product characteristics that really make a difference to the overall sustainability performance of the product. The production of Green PE contributes to the reduction of greenhouse gas emissions when compared to conventional polyethylene, made from fossil materials.

Principle 3: Clarity

The I'm Green™ label can be displayed on finished products that use Green PE in their composition, but its use must be accompanied by communication of the renewable content of the product or packaging verified in accordance with standard ASTMD6866. The claim is made by other industries that use Braskem's Green PE to make various plastic products that are available to the end-user consumer. Sometimes the limits are not clearly stated by these other industries (Braskem's clients). Although Braskem tries to be clear on this, sometimes the claim is stated for the packaging only, but the end-user consumer may confuse it with the product within it.



The main message 'Green PE has a lower carbon footprint than fossil PE' is clear. Additional details are available on the website to support a better understanding of the claim: LCA summary, brochures, infographics and videos. Moving forward, Braskem could work even more closely with its clients in order to guarantee the claim is presented as clear as possible to end-user consumers and that the boundaries of the claim are clearly communicated.

Principle 4: Transparency

The underlying LCA study to substantiate the claim can be accessed through the [website](#). The LCA has been peer reviewed by an independent panel and the summary is publicly available, with the full report available upon request. The code of conduct for ethanol suppliers was elaborated with external stakeholders such as Proforest, WWF, and Braskem customers.



The communication is transparent and all trade-offs are made visible in the support materials.

Principle 5: Accessibility

The I'm Green™ label and QR code are placed in a visible manner on packaging. Further information is available on the website (the QR code directs to the website), social media and sometimes specific promotional materials are designed for products.



Overall, information is readily accessible to all stakeholders interested and Braskem tackles constraints, like limited space on product packaging, with direct links to online resources.



The picture shows the I'm Green™ label and QR code placed on product.



Principle 6: Three Dimensions of Sustainability

Environmental: The claim addresses the carbon footprint and recyclability attributes of the raw material.



Social: Some social issues related to work conditions (labour and human rights) are the subject of the Code of Conduct for Ethanol Suppliers. There is an intention of including the social dimension through a Social Life Cycle Assessment in the future.

This claim primarily communicates the environmental dimension, although some issues related to work conditions are also considered in the development of the claim.

Principle 7: Behaviour Change and Longer Term Impact



Braskem has a business-to-business approach and tries to motivate its corporate clients to achieve high renewable-content levels in final products. To encourage behaviour change from its clients, Braskem mobilizes technical teams to provide support for the development of new products.

Braskem aims to highlight Green PE to its corporate clients and encourages them to use this raw material in an increasing number of products and packaging. They are developing additional communication products to this end. However, considering the business-to-business main approach, the company recognises that end-user consumers' behaviour change has to be addressed through collaboration with other actors along the value chain.

Principle 8: Multi-Channel and Innovative Approach



Information is shared on the website, while QR codes and social media channels are also used. Consumers can interact directly with the company through a hot line and contact channels that are displayed on the website. Also, the company is available to answer questions and comments on social media.

Braskem engage with clients (other companies) in diverse ways and try to follow the trends in society (e.g. increasing use of social media) to best communicate with end-user consumers.

Principle 9: Collaboration



Multi-stakeholder consultations were an integral part of the development of the claim, including research institutions and existing voluntary sustainability standards.

The company has utilized input from multi-stakeholders. Moving forward, partnerships with clients to encourage end-user consumers' behaviour change should be further promoted.

Principle 10: Comparability



Green Polyethylene is compared to fossil Polyethylene also produced by Braskem. The **selected methodology underlying the comparative claim explicitly covers guidance to product comparisons:** the LCA has been critically reviewed by a panel of stakeholders according to ISO 14044.

Green PE and fossil PE behave exactly the same after leaving the factory gate, so there are no differences other than the manufacturing stages covered in the LCA. Comparability post-production is more difficult and depends on consumer behaviour.