

# Biodegradable and compostable materials

## EASE YOUR TRANSITION TO A CIRCULAR ECONOMY THROUGH TESTING FOR BIODEGRADABILITY AND COMPOSTABILITY

The apparel and footwear industries face increasing scrutiny for their environmental impact, particularly in waste management. Traditionally, products often end up in landfills, where they can take decades, or even centuries, to decompose. For example, plastic materials can persist for over 100 years, contributing significantly to long-term pollution. The biodegradability and compostability of plastics can only be measured and verified by testing. Businesses that implement rigorous assessment protocols not only gain a deeper understanding of their products but also acquire data that supports sustainability claims and fosters consumer trust.

Biodegradable and compostable plastics, such as those used in footwear outsoles and textile garments, are emerging as promising alternatives to traditional plastics. This transition is fueled by regulatory changes, evolving consumer preferences and a growing sense of corporate responsibility.

### Understanding biodegradability and compostability

Biodegradation is the process through which materials are broken down by microorganisms into natural substances like water, carbon dioxide and biomass. The rate of biodegradation depends on environmental factors such as temperature, moisture and the presence of specific microorganisms. For a plastic to be classified as biodegradable, it must meet criteria that ensure effective decomposition under controlled conditions.

Compostable plastics are designed to degrade through biological processes, resulting in CO<sub>2</sub>, water and biomass, without toxic residues. This property makes them an eco-friendly option for reducing waste without harming the environment.

### WHY CHOOSE SGS?

We are the world's leading testing, inspection and certification company. With a global network of state-of-the-art laboratories and a team of dedicated professionals from diverse disciplines, we deliver comprehensive physical, chemical and functional testing for components, materials and finished products. Our expertise ensures your company meets the highest standards of quality, safety, sustainability and compliance with international, industrial and regulatory requirements. In the end, it's trusted because it's tested.

For more information or support regarding program development, please contact: [Global.SL.DAMO.Platform@sgs.com](mailto:Global.SL.DAMO.Platform@sgs.com)

### Ensure international standard compliance with SGS testing services

Our innovative testing capabilities align with various internationally recognized benchmarks. Assessments are available to meet the biodegradability and compostability requirements of the following standards:

- ISO 14855-1/ASTM D5338
- ASTM D5511
- ASTM D6691
- BS EN 13432 for packaging material / ASTM D6400
- AS 5810

These services play a crucial role in facilitating compliance and promoting the widespread adoption of sustainable materials. By conducting rigorous testing, we can provide accurate labeling that meets state and country regulations