



ECOSPEAR

SAVE THE FUTURE

www.ecospearbd.com

FIELD TEST OF
HOME-COMPOSTABLE FILM



ABOUT US

Ecospear is a company that has been working dedicatedly for the environment from its inception.

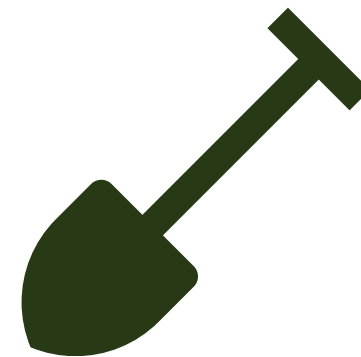
No, it's not an NGO, that only works for a cause, and doesn't bring any solution. No, it's not an organization that tells that they provide sustainable solutions and keeps loophole inside.

Ecospear understands that every person is different and every society is different. Not an average solution will fit everybody. So, we go deep into the norms and culture of an individual or a society and provide the best possible solution for that individual to become a successful Eco-warrior to build a sustainable leakproof society.

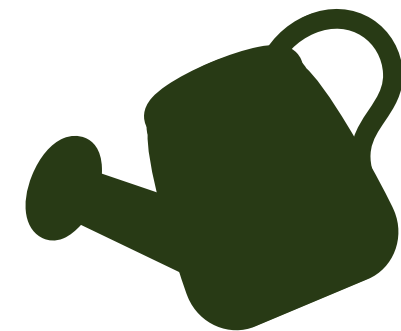


We work very closely with Bangladesh government (DoE & BSTI) to establish sustainable development.

We join local and international fairs and seminars to build awareness among people.



We manufacture the most effective Compostable products.



What we do



OUR CERTIFICATIONS

Local

Our product is certified from **BCSIR** for **biodegradability** and reached 100% biodegradation within **147 days**. Dept of Environment also tested our bags from **BUET**.

International

Our bags are also Home-compostable certified from **TÜVAustria** and **DinCertco**. These are world renowned **ISO-accredited labs**.

জীবনের জন্য বিজ্ঞান


বাংলাদেশ বিজ্ঞান ও শিল্প গবেষণা পরিষদ (বিসিএসআইআর)
BANGLADESH COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH (BCSIR)

Laboratories/ Institute/ Center: BCSIR Laboratories, Dhaka

ANALYSIS REPORT

ASC Ref No : D-03 Unit (Lab/Ins.) Ref No : 03
Lab Sample ID : FPRD/A-02 Number of Sample : 1 (One)
Sample Description : Bio-plastic Sample Test Commencement Date : 08/01/2018
Client's Details : ECOSPEAR Test Completion Date : 03/06/2018
House 14, H-Block, Halishahar, Chittagong, Bangladesh.

Ref. No. : Nil dt.27.12.2017

Details-

Sl. No.	Parameter	Method	Unit	Results
01.	Physical State	In-house	Apparent	Blue poly bag
02.	Solubility	In-house	°C	Water soluble in 70 °C
03.	Test for Bio-degradability	In-house (200 days)	-	100 % degradable within 147 days
04.	FT-IR Analysis	In-house	cm ⁻¹	3281.58; 2937.78; 1655.02; 1420.35; 1334.50; 1144.01; 1078.40; 1022.34; 924.08; 848.74;

Comments- The supplied sample does not contain any synthetic plastic material. It is a bio-plastic material as per test result given above.

[Signature] 03.06.2018
Analyst
Md. Khabir Uddin Sarker
Senior Scientific Officer
Fibre & Polymer Research Division
BCSIR Laboratories, Dhaka.
Dr. Qudrat-i-Khuda Road, Dhanmondi, Dhaka

[Signature] 03.06.2018
Supervisor
Swapan Kumar Ray
Senior Scientific Officer
Fibre & Polymer Research Division
BCSIR Laboratories, Dhaka.
Dhanmondi, Dhaka-1205

[Signature] 03.06.2018
Director/Officer In-Charge
Dr. Md. Sarwar Jahan
Director (Addl. Charge)
BCSIR Laboratories, Dhaka
Dr. Qudrat-i-Khuda Road
Dhaka-1205

Note:
a) The results reported here are based only on the supplied samples in this laboratory.
b) Any complain about test report will not be acceptable after one month from the date of issuing of the said report
c) This report/result shall not be reproduced/published without prior approval of the authority

Analytical Service Cell
Dr. Qudrat-i-Khuda Road, Dhanmondi, Dhaka-1205, Bangladesh.
Phone: 96711108 Fax: 88-02-96711108 E-mail: asc@bcsir.gov.bd

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**CERTIFICATE FOR AWARDING AND USE OF THE
'OK COMPOST HOME' CONFORMITY MARK**

TA8021702011
(Prolongs the certificate dated 20 March 2020)
Issued by TÜV AUSTRIA CERT GMBH

Product(s):
Home Compostable Products
Raw materials
Bio Material
In form of Resin or Granulates
C200
Maximum nominal thickness (in film format): 63 µm
Colour: beige

Mark description / Particularities

Manufacturer:
[Redacted] ECH. CO., LTD.
Kefeng Road No. 33 [Redacted] Luogang District
[Redacted] Zhou
China

- Test Program with reference OK 2 edition D "Home compostability of products"
- NF T 51-800 (11-2015): "Plastics – Specifications for plastics suitable for home composting"

From 15 March 2022 till 15 March 2027

Conditions of the examination: The products comply with the above mentioned certification criteria, as confirmed by the report 65000289 / 2022-AF-0371cert.

able certification system: Type examination followed by supervision through verification tests on samples from the distributor's stocks or of the market.
The conformity of the product is guaranteed by the procedures for awarding and use of the 'OK compost HOME' conformity mark. This only applies for specimen bearing the 'OK compost HOME' mark.

23 February 2022

[Signature]

Certification Committee
VOLFS
nt of the Committee

FM-LTC-TABE-CERT-BIO-OKH-003_certificate_EN
Rev 1902



We tested too..

Burn test

We have burnt our bags to see its effect. It became **ash to the biomass**, which will become a good manure to the soil. It doesn't drip like polyethalene or poly propylene.

Scientific test

We have also tested our bags with worldwide acknowledged solvent where it **becames totally diluted** and polythene remains the same in it.

Field test

Though we got the BCSIR and TUV Austria certification from their lab, we have tested our ready films to the field with **an independent third party agricultural research farm (CCDB Climate Center)**. The result is astonishing.





Field Test

1st Day





DAY 7

Seedling emergence

The space was made for the seedling to emerge. The film is in absolute nature, where it is getting sunlight, moisture and humidity.

**A perfect condition to
see the decomposition.**





DAY 14

Little bit of fungus formation is visible on the film. Due to it's breathability, plants also grows under it.





DAY 21

Fungus formation kept building on the film.
Plants are healthy and no adverse effect was
seen.





DAY 28

After some rain, plants are more alive. Films are intact. After fungus, now micro-organisms from the soil will come to play.





DAY 35

Fungus formation kept building on the film.
Plants are healthy and no adverse effect was
seen.





Day 42

The film has started to decay under the plants. Crops cycle is almost in the end. No adverse effect was seen on the soil.





Day 49



Harvest completed and film has already started to decompose.



Day 56

A clear degradation is visible on the film.





DAY 63

After monsoon rain, the film has started to decompose faster. It's time to nourish the soil for the next harvest. Micro-organisms are eating the film faster now.





Day 70

The film is almost absorbed by the soil. Since its made from organic material, it will automatically decompose to the nature without any extra treatment.





“NO PLASTIC PRODUCT” CAN DEGRADE LIKE THIS



Plastic Film



Hard Plastic



Grocery bags

Only in 70 days

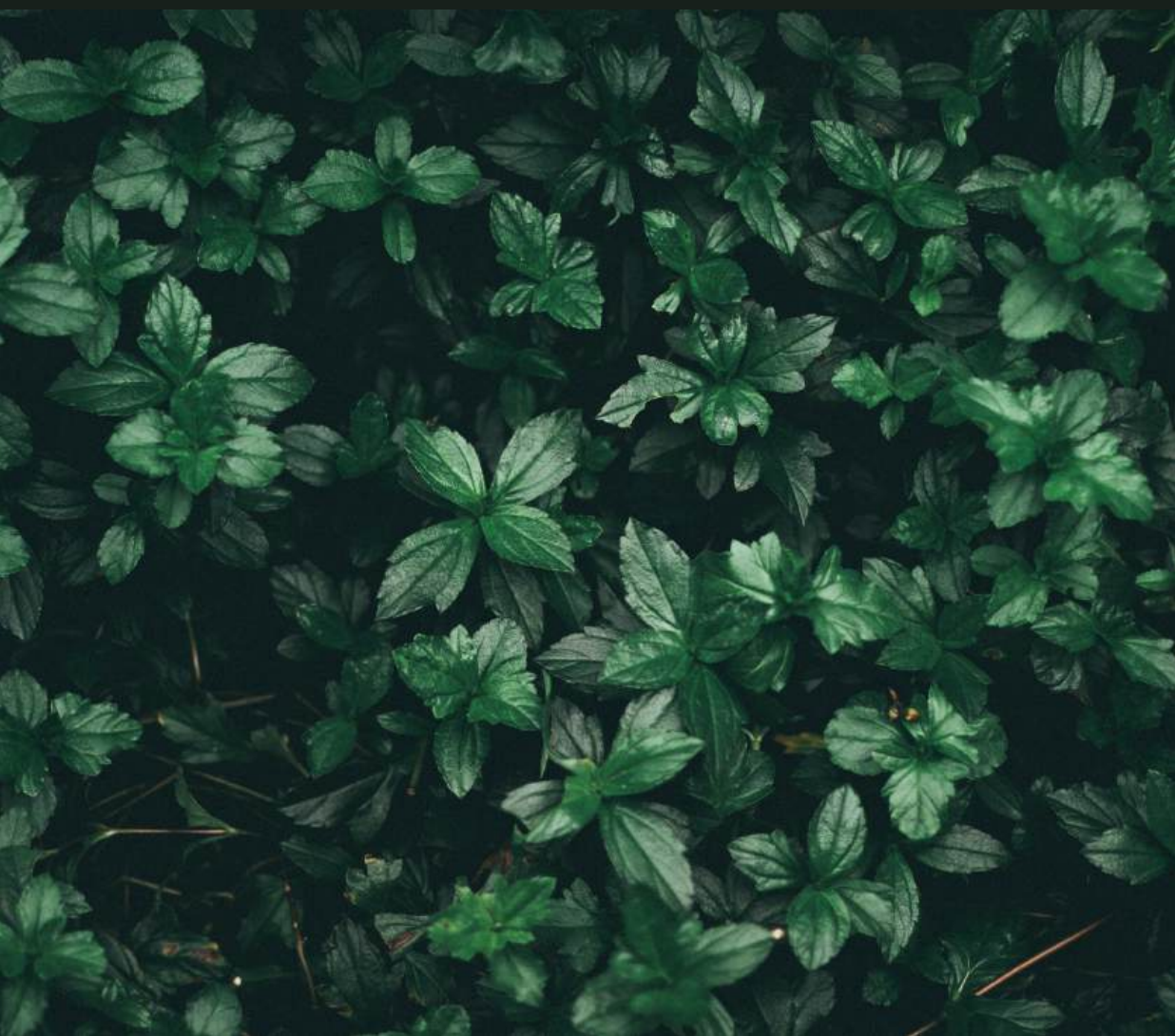


WE DON'T COMPROMISE

HOME-COMPOSTABLE ONLY

We don't keep any gray area by providing oxo-degradable or industrial compostable product, which either harm or doesn't decompose naturally to the nature.

Home-compostable is the most organic and advanced biodegradable technology in the world right now, which is totally made from renewable resources, and already well-received by all developed countries.





We, Ecospear offer a wide range of Home-Compostable products, including grocery bags, cups, straws, cutlery, and packaging. Our products are made in such a way, that can be broken down by bacteria and other microorganisms. This means that they do not contribute to the problem of plastic pollution, which is a major environmental issue.

Shwapno Gulshan branch

100% Home-compostable bag was already introduced to the shwapno Gulshan branch for customer feedback. People just loved our bags and happy to switch to 100% eco-friendly solution. The Customers were very eager to learn more about this game-changing carry bags.

Grocery bags





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CONTACT US



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www.ecospearbd.com

*“Sustainability isn’t about appearance;
it’s about integrity.”*