TELOBAG

2021

LABORATORY SUMMARY

ABOUT TELOBAG

A LITTLE BIT ABOUT OUR HUMBLE COMPANY

Launched in 2016, Telobag's main intention is to serve the locals, eco-friendly products that do not pollute the environment. Deeply concerned by climate change, environmental degradation, and resource depletion, Telobag promotes a mission of producing goods that benefit humans and at the same time, do not cost the Earth.

INTRODUCTION

Plastic bag restrictions and bans are becoming much more common around the world. Over 127 states have made restrictions prohibiting their usage, a rise of more than threefold in the last decade. The latest adherents are Jakarta, the capital of Indonesia, the second-largest polluter of plastic waste into the oceans, and Japan, which ranks second for volume of single-use plastic packaging per person. On July 1, both Jakarta and Japan banned the use of free plastic bags at checkout counters.

Telobag is a way to combat the growing plastic pollution. Our products are made from plant-based cassava roots and contain 0% micro-plastics residue which made it safe to be ingested by animals and kind to plants. In just 180 days, Telobag biodegrades and gets back to nature, proving its sustainability character as opposed to plastic bags which takes 100 years.

GOALS

This report is a compilation of all laboratory results which show that Telobag is an organic carrier bag and does not contain any plastic or micro-plastic residue considered toxic for the environment.

1. PRODUCT INK

THIS SECTION INCLUDES LABORATORY RESULT FOR THE INK USED

CERTIFICATE FOR OUR PRODUCT

It is hereby certified that the following products are using organic/anorganic pigment

Product Description:

DX-60

NO	NAME OF INX	TYPE OF PIGMENT
1	WHITE 110 G	ANORGANIC
2	YELLOW 238 G	ORGANIC
3	TR.YELLOW 260 G	ORGANIC
4	ORANGE 303 GS	ORGANIC
5	BR RED 333 G	ORGANIC
6	BR RED 335 G	ORGANIC
7	GERANIUM 350 G	ORGANIC
8	GERANIUM 360 GS	ORGANIC
9	GERANIUM 370 G	ORGANIC
10	GERANIUM 375 G	ORGANIC
11	VIOLET 510 G	ORGANIC
12	BLUE 800 G	ORGANIC
13	GREEN 930 GS	ORGANIC
14	BLACK 1000 G	ANORGANIC
15	GOLD	ANORGANIC
16	SILVER	ANORGANIC

PT SAKATA INX INDONESIA

P.T. SAKATA INX INDONESIA

Koichi Matsuyama
Factory Director

2. PRODUCT TOXICITY

THIS SECTION INCLUDES LABORATORY RESULT FOR THE LEVEL OF TOXICITY TESTED BASED ON THE RAW MATERIAL COMPOSITION

THE PELLET (RAW MATERIAL) USED TO MANUFACTURE TELOBAG IS BIO-BASED COMPOSITE MADE FROM:

1. STARCH
2. VEGETABLE OIL DERIVATIVES

THE INGREDIENTS INCLUDE STARCH, GLYCERINE AND POLYVINYL ALCOHOL.

ACCORDING TO PT.INTERA LESTARI POLIMER (2018), THERE IS

1. NO HAZARDOUS WARNING FOR THE COMPONENTS OF THE PELLET
2. NO PRESENCE OF SPECIFIC FIRE HAZARDS (BURN ONLY WHEN IGNITED)

CLASSIFIED AS NON TOXIC WITH LD CONSIDERED TO BE LOWER THAN 5000 MG/KG (ACCORDING TO OECD 423 TEST GUIDELINE)

(PT. INTERA LESTARI POLIMER)

2. PRODUCT TOXICITY

THIS SECTION INCLUDES LABORATORY RESULT FOR THE LEVEL OF TOXICITY TESTED BASED ON THE RAW MATERIAL COMPOSITION

There are no established exposure limits for the mixture, however, dust and fumes from processing should be ventilated adequately.

To the best of our knowledge :

None of the mixture components are on the health & safety reporting list.

None of the mixture components are in this product are under a Chemical Test Rule.

None of the mixture components are listed under TSCA section 12b (export notification).

None of the mixture components in this material have an SNUR under TSCA.

None of the mixture components in this material have an RQ under CERLCA.

None of the mixture components in this material have a TPQ under SARA.

None of the mixture components in this material is reported under section 313.

Clean Air Act :

This material does not contain any hazardous air pollutants.

Clean water act :

None of the chemicals in this product are listed as hazardous substances under the CWA.

None of the chemicals in this product are listed as priority pollutants under CWA.

None of the chemicals in this product are listed as toxic pollutants under CWA.

OSHA :

None of the chemicals in this product are considered highly hazardous by OSHA.

THE TEST CONDUCTED BY PT.INTERA LESTARI POLIMER ON THE COMPONENTS OF THE RAW MATERIALS USED TO MANUFACTURE ALL TELOBAG PRODUCTS.

(PT. INTERA LESTARI POLIMER)

3. PRODUCT IDENTIFICATION

THIS SECTION EXPLORE THE IDENTIFICATION OF TELOBAG AS AN ORGANIC CARRIER BAG

One (1) sample indicated as 'Organic Carrier Bag' (see Figure 1) was received on 2 May 2018.

Figure 1. Photograph of 'Organic Carrier Bag' Sample

Organic Carrier Bag

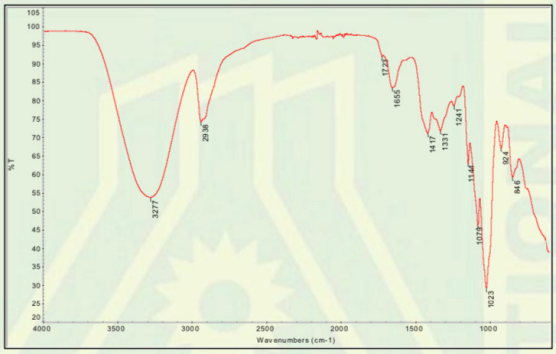


Figure 2. FTIR Spectrum of 'Organic Carrier Bag' Sample

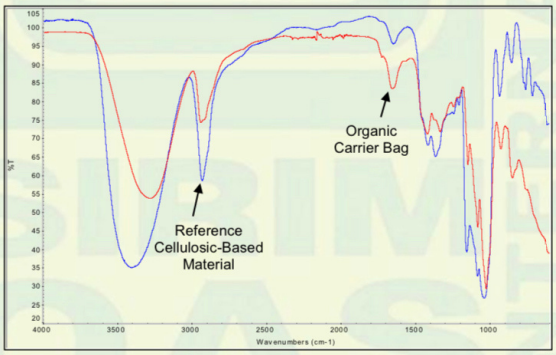


Figure 3. Overlaid FTIR Spectra of 'Organic Carrier Bag' Sample with Reference Cellulosic-Based Material

FIGURE 2 SPECTRUM SHOWS THE COMPOUNDS PRESENT IN TELOBAG.

THE SIMILAR FREQUENCIES OF THE ABSORPTIONS (OVERLAPPING SPECTRUM) SEEN IN FIGURE 3 CAN BE USED TO IDENTIFY THE PRESENCE OF CELLULOSIC-BASED MATERIAL IN TELOBAG.

THIS PROVES TELOBAG IS MADE OF NATURALLY OCCURRING ORGANIC MATERIAL.

Organic Carrier Bag

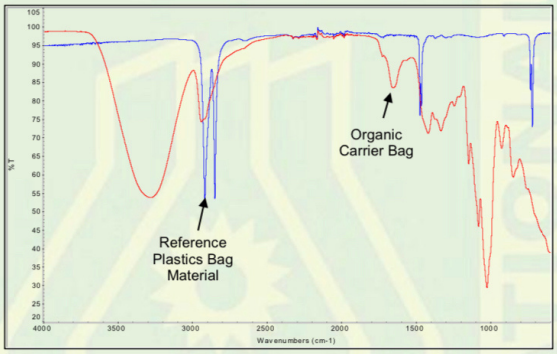


Figure 4. Overlaid FTIR Spectra of 'Organic Carrier Bag' Sample with Reference Plastics Bag Material

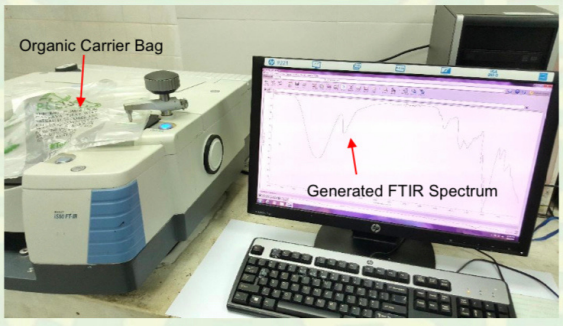


Figure 5. Photograph of 'Organic Carrier Bag' Sample during FTIR Test

THE BLUE AND RED SPECTRUM ON FIGURE 4 SHOW THE CONTRAST COMPONENT PRESENT IN PLASTIC BAG MATERIAL AND TELOBAG ORGANIC CARRIER BAG.

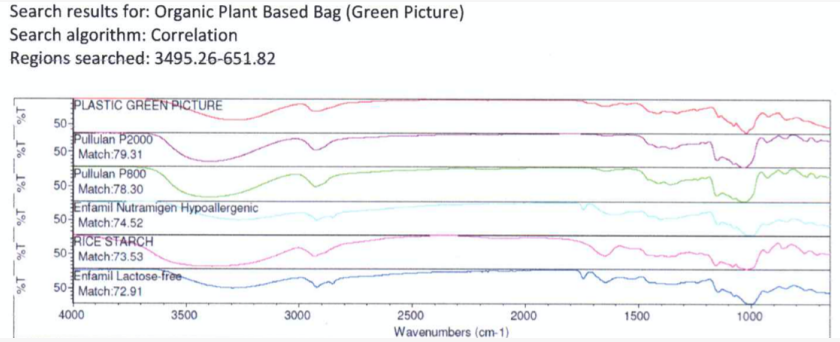
THE STARK DIFFERENCE IN THE SHAPE OF THE ABSORPTION VALUES IN FIGURE 4 IS RESULTED FROM THE ABSENCE OF PLASTIC BAG MATERIAL IN TELOBAG.

THIS PROVES TELOBAG TO NOT CONTAIN ANY OF THE PLASTIC BAG MATERIAL.

4. TELOBAG ≠ PLASTIC BAG

THIS SECTION EXPLORE THE IDENTIFICATION OF TELOBAG AS NON-PLASTIC BAG

TELOBAG



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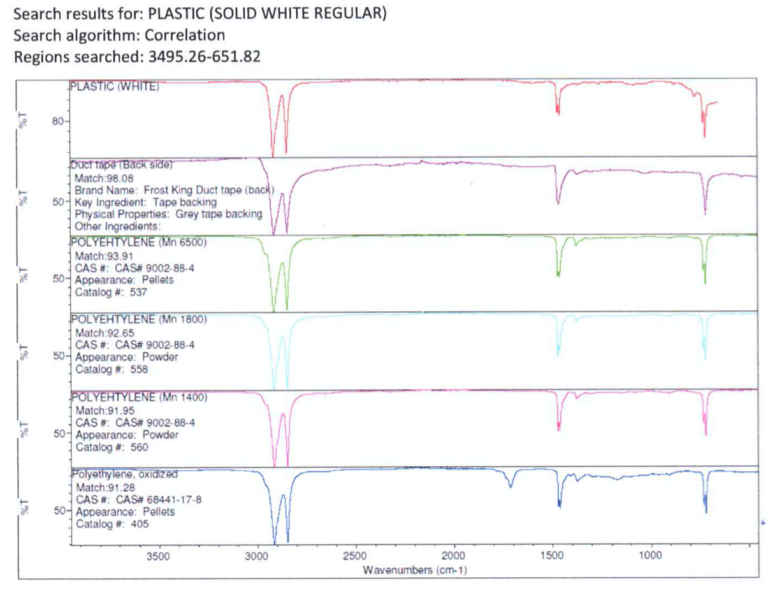
PLASTIC BAG



THE CONTRAST SHAPE OF THE SPECTRUM PRESENT IN ORGANIC PLANT BASED BAG (TOP) AND PLASTIC (BOTTOM) SHOWS THERE IS NO CORRELATION BETWEEN TELOBAG AND PLASTIC BAG.

THIS PROVES TELOBAG TO NOT CONTAIN ANY OF THE PLASTIC BAG MATERIAL.

(INTERTEK TEST REPORT)

intertek
Total Quality. Assured.

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TEST REPORT FOR
Report No.: SINH20011117
Date: 28 January 2020

DISCUSSION

As per results from FTIR analysis, the Organic Plant Based Bag mainly contains Starch compounds such as pullulan and rice starch which is totally different from the plastic bag available in the market, Polyethylene bags. The spectrum from the Organic Plant Based Bag showed the absorbances near 3000 cm^{-1} indicating C-H stretching vibration and 1000 – 1500 cm^{-1} mainly C-H, O-H, C-O bending and stretching vibrations. The overall fingerprints are matching to organic starch compounds.
For normal plastic bag, it is very clear that the polyethylene typical FTIR absorbances were present.

CONCLUSION

The submitted organic plant based bag was then confirmed it contained starch compound and is not a normal commercial plastic bag.

On behalf of Intertek Testing Services (S) Pte Ltd

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