



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

TA8012105430

Issued by TÜV AUSTRIA CERT GMBH

Product(s):

Domain
Group
Family
Type
Trade mark
Description / Particularities

Industrially Compostable Products
Components & constituents
Films, Sheets & Plates
Paper
Green Shield
Nominal grammage : 365 gsm
Colour : white
Unprinted

Licensee:

Hankuk Paper MFG Co., Ltd.
18F, 19F Haesung Building, 504, Teheran-ro, Gangnam-gu
06178 Seoul
Republic of Korea

Criteria:

- Test Program with reference OK 1 edition E
Including EN 13432 (09-2000) : « Packaging - Requirements for
packaging recoverable through composting and biodegradation – Test
scheme and evaluation criteria for the final acceptance of packaging »

Validity:

From 15 February 2021 till 15 February 2026

**Conclusions of the
examination:**

The products comply with the above mentioned certification criteria, as
confirmed by the report no 65002976 / 2020-AG-0773cert.

Applicable 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 INDUSTRIAL' conformity mark. This only
applies for specimen bearing the 'OK compost INDUSTRIAL' mark.

Brussels, 15 February 2021

For the Certification Committee
Ph. DEWOLFS
President of the Committee

Annex : /

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

Certification Report



Contact : C. Wei

• Our references

Report n° : 65002976 / 2020-AG-0773cert

• Your references

Ref. : 2020-AG-0773-01

• Intervention data

Place : Kraainem

Date : 19/01/2021

Performed by : C. Wei

Hankuk Paper MFG Co., Ltd.

For the attention of Mr. Iksun Choi

18F, 19F Haesung Building, 504, Teheran-ro, Gangnam-gu
06178 Seoul
Republic of Korea

INITIAL ACCEPTANCE EXAMINATION ON THE COATED PAPER IN THE FRAMEWORK OF THE OK COMPOST INDUSTRIAL CONFORMITY MARK

1. PURPOSE OF THE EXAMINATION

The aim of the tests and examinations described in this report is to check whether the submitted products (full product description: see § 5 of current report) comply with the requirements stipulated in the OK compost INDUSTRIAL certification scheme.

2. REMARKS

Unless mentioned differently, all concentrations are expressed as dry weight percentages.

2.1. **Any change** to a product covered by an OK compost INDUSTRIAL certificate **has to be notified to TÜV AUSTRIA Belgium NV**. This demand is applicable to all type of materials, certified or not, because TÜV AUSTRIA Belgium NV can impossible verify modifications of which it was not informed.

2.2. In order to establish a good and clear communication, we ask Hankuk Paper MFG Co., Ltd. to take the following remarks into account while communicating with their customers:

2.2.1. *A finished product made of an OK compost INDUSTRIAL certified basic or **raw material** like Green Shield, does not automatically comply with the requirements of the OK compost INDUSTRIAL certification scheme. Because of the other unknown components that can be added to the finished product (ink, reinforcement path, glue, ...), this **finished product** needs to be submitted to OK compost INDUSTRIAL certification in order to have the permission to put the OK compost INDUSTRIAL mark on this finished product.*

2.2.2. *The OK compost INDUSTRIAL certificate guarantees compostability in an industrial composting plant. The OK compost INDUSTRIAL certificate may not be used to make a claim of home compostability, biodegradation just anywhere in nature or the use of biobased resources. Formal certification to a separate standard such as OK compost HOME, OK biodegradable SOIL, OK biodegradable WATER, OK biodegradable MARINE or OK biobased is required in order to make such a claim.*

Date : 15/02/2021

Number of pages : 3

Enclosure(s) : Assessment Report with ref. 65002976 / 2020-AG-0773insp

Infrared Spectroscopy Report with ref. 65002976 / 2020-AG-0773ir

Distribution : or. Hankuk Paper MFG Co., Ltd.

cc. SZU Korea

For the Manager

3. **CERTIFICATION SCHEME AND CRITERIA**

- Certification scheme OK 1 – OK compost INDUSTRIAL, Edition E (2012-03-02)
Compostability of products
Initial acceptance

4. **DOCUMENTS SUBMITTED**

- **See our report(s):**
 - with reference 65002976 / 2020-AG-0773insp, dated 15/02/2021
- **See test report(s) ITENE:**
 - with reference C20.0920, dated 08/02/2021 (heavy metals test) / (ecotoxicity test) / (biodegradation test) / (disintegration test)
- **Mail(s):**
 - of 15/02/2021 by Mrs. Park to Mr. Wei, concerning the tradename
- **Document(s):**
 - Application form, dated 29/05/2020
 - Material Safety Data Sheet KAcE P N C, dated 02/03/2020
 - Material Safety Data Sheet APC-200, dated 12/06/2014
- **Sample(s):**
 - Samples of coated paper, arrived 23/12/2020, recording reference: CCT

5. **MATERIAL TO CERTIFY**

The following products and/or materials are subject of current certification:

- For OK compost INDUSTRIAL:

Product / Trade name:	Green Shield
Product type:	2.1.3. Paper
Material composition:	95.89 % KAcE P N C by Hankuk Paper MFG Co., Ltd. (350 gsm) 4.11 % APC-200 by APEC, Ltd. (15 gsm)
Colour:	White, unprinted
Thickness:	Nominal 365 gsm
Production site:	(1) Same as report address
Specifications:	Coated paper

6. **EVALUATION**

Given the similarities, the results of the evaluation detailed in our 65002976 / 2020-AG-0773insp report can be fully transposed for the coated paper.

Since we do not know if the coated paper will be integrated in a packaging or not, the assesement has been performed according to EN 13432. Accreditation can be only mentioned if the coated paper is integrated in a packaging.

7. CONCLUSION

Taking into account the above made evaluation and the obtained results during the examinations of the materials, we conclude that the coated paper Green Shield fulfils the requirements of the OK compost INDUSTRIAL certification scheme and therefore also fulfils the requirements of EN 13432 on the condition that the product fully corresponds to the product description in § 5 of the current report.

OVERVIEW OF EVOLUTIONS

- OK compost INDUSTRIAL:

Certificate	Date	Report	Evolution
TA8012105430	15/02/2021	current report	Initial certification

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The test results only bear on the articles submitted to the tests.

Contact : C. Wei

• Our references

Report n° : 65002976 / 2020-AG-0773insp

• Your references

Ref. : 2020-AG-0773-01

• Intervention data

Place : Kraainem

Date : 19/01/2021

Performed by : C. Wei

Hankuk Paper MFG Co., Ltd.

For the attention of Mr. Iksun Choi

18F, 19F Haesung Building, 504, Teheran-ro, Gangnam-gu
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INITIAL ACCEPTANCE EXAMINATION ON THE COATED PAPER ACCORDING TO EN 13432

1. PURPOSE OF THE EXAMINATION

The aim of the tests and examinations described in this report is to check whether the submitted products (full product description: see § 5 of current report) comply with the requirements of the EN 13432 standard, which only applies to packaging and packaging materials.

This assessment is performed under accreditation according to ISO 17020.

2. REMARKS

Unless mentioned differently, all concentrations are expressed as dry weight percentages.
Any change to a product covered by the current report cancels its conclusions.

Since we do not know if the coated paper will be integrated in a packaging or not, the assessment has been performed according to EN 13432.

Accreditation can be only mentioned if the coated paper is integrated in a packaging.

3. ASSESSMENT CRITERIA

- EN 13432 : 2000

4. DOCUMENTS SUBMITTED

- See our report(s):
 - /.
- See test report(s) ITENE:
 - with reference C20.0920, dated 08/02/2021 (heavy metals test) / (ecotoxicity test) / (biodegradation test) / (disintegration test)

Date : 15/02/2021

Number of pages : 3

Enclosure(s) : Infrared Spectroscopy Report with ref. 65002976 / 2020-AG-0773ir

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cc. SZU Korea

For the Manager



- **Mail(s):**
 - of 15/02/2021 by Mrs. Park to Mr. Wei, concerning the tradename
- **Document(s):**
 - Application form, dated 29/05/2020
 - Material Safety Data Sheet KAc P N C, dated 02/03/2020
 - Material Safety Data Sheet APC-200, dated 12/06/2014
- **Sample(s):**
 - Samples of coated paper, arrived 23/12/2020, recording reference: CCT

5. MATERIAL TO ASSESS ACCORDING TO EN 13432

The following products and/or materials are subject of current assessment:

Product / Trade name:	Green Shield
Product type:	2.1.3. Paper
Material composition:	95.89 % KAc P N C by Hankuk Paper MFG Co., Ltd. (350 gsm) 4.11 % APC-200 by APEC, Ltd. (15 gsm)
Colour:	White, unprinted
Thickness:	Nominal 365 gsm
Specifications:	Coated paper

6. ASSESSMENT

6.1 Disintegration requirements

Test method

Disintegration test performed according to ISO 16929.

Results

After 12 weeks of composting of the test material Green Shield (thickness: 361 gsm) a disintegration percentage of 90.35 % was reached. This result is satisfactory to the disintegration requirements of the EN 13432.

6.2 Biodegradation requirements

After 83.5 days of incubation of the test material Green Shield a relative biodegradation percentage of 94.88 % (absolute biodegradation: 71.64 %) was reached. This result is satisfactory to the biodegradation requirements of the EN 13432.

6.3 Ecotoxicity requirements

The material Green Shield was tested in a 10 % concentration for ecotoxicity. The results are satisfactory to the ecotoxicity requirements of the EN 13432.

6.4 Material characteristics requirements

The volatile solids and heavy metals and fluor content of material Green Shield are below the limits of the EN 13432.

6.5 Verification of the submitted sample(s)

	As stated by the applicant	As checked
Thickness	365 gsm	361.6 gsm by ITENE
Colour	White	White
Printing	NA	NA
Other characteristics	NA	NA

Infrared analysis: see report 65002976 / 2020-AG-0773ir

A variation within 10% of the grammage is commonly accepted for such products.

7. **CONCLUSION**

Taking into account the above made evaluation and the obtained results during the examinations of the materials, we conclude that the coated paper Green Shield fulfils the requirements of the EN 13432 on the condition that the product fully corresponds to the product description in § 5 of the current report.

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Infrared Spectroscopy Report



Contact : C. Wei

- Our references

Report n° : 65002976 / 2020-AG-0773ir

- Your references

Ref. : 2020-AG-0773-01

- Intervention data

Place : Kraainem

Date : 19/01/2021

Performed by : C. Wei

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INFRARED SPECTROSCOPY REPORT OF COATED PAPER

1. PURPOSE OF THE EXAMINATION

The aim of the analysis described in this report is to create an infrared fingerprint of the submitted material. This fingerprint can be used to identify the examined compound.

2. ANALYSIS METHOD AND APARATUS

Analysis method:	Fourier Transform Infrared Spectroscopy
Range:	Mid-infrared (4000-650 cm ⁻¹)
Sampling technique:	Attenuated Total Reflectance (ATR)
Aparatus:	Thermo Scientific Nicolet iS10 FT-IR spectrometer
Accessory for sampling:	Smart iTR (ATR) with diamond plate for iS10
Internal reference:	TABE-LAB-01
Collection parameters:	
Number of sample scans:	32
Number of background scans:	32
Resolution	4,000 cm ⁻¹

3. EXAMINED PRODUCT

The following product is submitted to infrared spectroscopy:

Product description:	White coated paper
Conformity mark:	OK compost INDUSTRIAL
Certificate reference:	TA8012105430

Origin of the examined product: sent by laboratory, received 23/12/2020.

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Date : 15/02/2021

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Enclosure(s) : Infrared Spectra (ref I34421, I34422)

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cc. SZU Korea

For the Manager



