

DEKRA Automobil GmbH Handwerkstr. 17 D-70565 Stuttgart

Producent Wyrobów Papierniczych  
JACK-POL Sp. z o.o.  
55-200 Oława,  
ul. Portowa 1b  
Poland

**DEKRA Automobil GmbH**

Laboratory for Environmental and Product Analysis  
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Date Aug 05, 2020  
Page 1 of 11

**Order No.:** 55268358

**Test Report No.:** PB2005679

**Version 1**

Client: Producent Wyrobów Papierniczych  
JACK-POL Sp. z o.o.  
55-200 Oława,  
ul. Portowa 1b  
Poland by:  
DEKRA Certification Sp. z.o.o.  
Herr Miroslaw Hanc  
ul. Rzymowskiego 28  
PL - 02-697 Warszawa

Date of order: 16.07.2020

Sample received: 17.07.2020

Number of samples: 3 samples

Scope of investigation: Testing of food contact article

Sample description: Recycled paper towel (white)

Recycled paper towel (blue)

Cellulose towel (white)

Testing Period: 17.07.2020 – 05.08.2020

**Test Result:**

- following page / pages -

Accredited Analytical Laboratory D-PL-11060-03-00 in Stuttgart and Halle (Saale)

<b>Sample No.:</b>	55268358-001
<b>Sample designation:</b>	Recycled paper towel (white)
<b>Sample description:</b>	Food contact article

**Product photo:**

*Sample 55268358-001: Recycled paper towel (white)*

LQ: Limit of quantification

Worked out:  
Person in charge:

DEKRA Automobil GmbH – Handwerkstr. 17 – 70565 Stuttgart  
Caroline Moritz Phone 0711/ 7861-3541

Parameter	Unit	Result	LQ	Limit value
Sensorical test <sup>1,2</sup>	-	0	-	< 3
Pentachlorophenol <sup>3</sup>	mg/kg	< LQ	0,01	0,15
Diisopropylnapthalene	mg/kg	< LQ	10	as low as technically feasible
Formaldehyde (extract) <sup>3</sup>	mg/dm <sup>2</sup>	< LQ	0,05	1
Glyoxal (extract) <sup>3</sup>	mg/dm <sup>2</sup>	< LQ	1	1,5
<b>Heavy metals (extract) <sup>3</sup></b>				
Chromium	mg/dm <sup>2</sup>	< LQ	0,0004	0,004
Lead (Pb)	µg/l	< LQ	1	10
Cadmium (Cd)	µg/l	< LQ	0,1	5
Mercury (Hg)	µg/l	0,44	0,01	-

<sup>1</sup> Scale of intensity:

- 0 - no noticeable change of smell and taste
- 1 - marginal change of smell and taste
- 2 - slight change of smell and taste
- 3 - clear change of smell and taste
- 4 - strong change of smell and taste

<sup>2</sup> Test conditions: butter biscuit, 24h, 20 °C

<sup>3</sup> Test conditions: cold water extract according to DIN EN 645

Parameter	Result
Optical brighteners	<b>positive</b>

LQ: Limit of quantification

**Summary:**

According to §2 subsection 6 no.1 of the German Food and Feed Code (LFGB) the tested sample is a food contact article.

According to article 3 subsection 1 c of the regulation (EC) 1935/2004 materials and articles shall be manufactured in compliance with good manufacturing practise so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could bring about a deterioration in the organoleptic characteristics thereof.

The tested sample meets this requirement.

According to BfR-recommendation XXXVI. (Paper, cardboard and paperboard for food contact) the extract of the finished product must not contain more than 10 µg/l lead and 5 µg/l cadmium.

The sample meets these requirements.

According to BfR-recommendation XXXVI. (Paper and board for food contact) the extract of the finished product must not contain more than 0,004 mg chromium(III)/dm<sup>2</sup> and chromium(VI) must not be detectable.

The sample meets this requirement.

According to the BfR Recommendation XXXVI. (Paper, cardboard and paperboard for food contact) the content of Diisopropylnaphthalene (DIPN) in the finished paper should be kept as low as technically feasible to minimize migration into food.

In the extract of the sample no DIPN was detected.

According to the BfR Recommendation XXXVI. (Paper, cardboard and paperboard for food contact) no more than 1,0 mg formaldehyde per dm<sup>2</sup> or 1,5 mg glyoxal per dm<sup>2</sup> must be detectable in the extract of the finished product.

The extract of the sample meets these requirements.

According to resolution AP (2002) 1 on paper and board materials and articles intended to come in contact with foodstuffs the finished product shall not contain more than 0.15 mg/kg pentachlorophenol (PCP).

<b>Sample No.:</b>	55268358-002
<b>Sample designation:</b>	Recycled paper towel (blue)
<b>Sample description:</b>	Food contact article

**Product photo:**

*Sample 55268358-002: Recycled paper towel (blue)*

LQ: Limit of quantification

Worked out:  
Person in charge:

DEKRA Automobil GmbH – Handwerkstr. 17 – 70565 Stuttgart  
Caroline Moritz Phone 0711/ 7861-3541

Parameter	Unit	Result	LQ	Limit value
Sensorical test <sup>1,2</sup>	-	0,5	-	< 3
Pentachlorophenol <sup>3</sup>	mg/kg	< LQ	0,01	0,15
Diisopropylnapthalene	mg/kg	< LQ	10	as low as technically feasible
Formaldehyde (extract) <sup>3</sup>	mg/dm <sup>2</sup>	< LQ	0,05	1
Glyoxal (extract) <sup>3</sup>	mg/dm <sup>2</sup>	< LQ	1	1,5
<b>Heavy metals (extract) <sup>3</sup></b>				
Chromium	mg/dm <sup>2</sup>	< LQ	0,0004	0,004 (CrIII)
Lead (Pb)	µg/l	< LQ	1	10
Cadmium (Cd)	µg/l	< LQ	0,1	5
Mercury (Hg)	µg/l	2,2	0,01	-

<sup>1</sup> Scale of intensity:

- 0 - no noticeable change of smell and taste
- 1 - marginal change of smell and taste
- 2 - slight change of smell and taste
- 3 - clear change of smell and taste
- 4 - strong change of smell and taste

<sup>2</sup> Test conditions: butter biscuit, 24h, 20 °C

<sup>3</sup> Test conditions: cold water extract according to DIN EN 645

Parameter	Result
<b>Optical brighteners</b>	<b>positive</b>

LQ: Limit of quantification

**Summary:**

According to §2 subsection 6 no.1 of the German Food and Feed Code (LFGB) the tested sample is a food contact article.

According to article 3 subsection 1 c of the regulation (EC) 1935/2004 materials and articles shall be manufactured in compliance with good manufacturing practise so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could bring about a deterioration in the organoleptic characteristics thereof.

The tested sample meets this requirement.

According to BfR-recommendation XXXVI. (Paper, cardboard and paperboard for food contact) the extract of the finished product must not contain more than 10 µg/l lead and 5 µg/l cadmium.

The sample meets these requirements.

According to BfR-recommendation XXXVI. (Paper and board for food contact) the extract of the finished product must not contain more than 0,004 mg chromium(III)/dm<sup>2</sup> and chromium(VI) must not be detectable.

The sample meets this requirement.

According to the BfR Recommendation XXXVI. (Paper, cardboard and paperboard for food contact) the content of Diisopropylnaphthalene (DIPN) in the finished paper should be kept as low as technically feasible to minimize migration into food.

In the extract of the sample no DIPN was detected.

According to the BfR Recommendation XXXVI. (Paper, cardboard and paperboard for food contact) no more than 1,0 mg formaldehyde per dm<sup>2</sup> or 1,5 mg glyoxal per dm<sup>2</sup> must be detectable in the extract of the finished product.

The extract of the sample meets these requirements.

According to resolution AP (2002) 1 on paper and board materials and articles intended to come in contact with foodstuffs the finished product shall not contain more than 0.15 mg/kg pentachlorophenol (PCP).

<b>Sample No.:</b>	55268358-003
<b>Sample designation:</b>	Cellulose towel (white)
<b>Sample description:</b>	Food contact article

**Product photo:**

*Sample 55268358-003: Cellulose towel (white)*

LQ: Limit of quantification

Worked out:  
Person in charge:

DEKRA Automobil GmbH – Handwerkstr. 17 – 70565 Stuttgart  
Caroline Moritz Phone 0711/ 7861-3541



Parameter	Unit	Result	LQ	Limit value
Sensorical test <sup>1,2</sup>	-	0	-	< 3
Pentachlorophenol <sup>3</sup>	mg/kg	< LQ	0,01	0,15
Diisopropylnapthalene	mg/kg	< LQ	10	as low as technically feasible
Formaldehyde (extract) <sup>3</sup>	mg/dm <sup>2</sup>	< LQ	0,05	1
Glyxoal (extract) <sup>3</sup>	mg/dm <sup>2</sup>	< LQ	1	1,5
<b>Heavy metals (extract) <sup>3</sup></b>				
Chromium	mg/dm <sup>2</sup>	< LQ	0,0004	0,004 (CrIII)
Lead (Pb)	µg/l	< LQ	1	10
Cadmium (Cd)	µg/l	< LQ	0,1	5
Mercury (Hg)	µg/l	0,18	0,01	-

<sup>1</sup> Scale of intensity:

- 0 - no noticeable change of smell and taste
- 1 - marginal change of smell and taste
- 2 - slight change of smell and taste
- 3 - clear change of smell and taste
- 4 - strong change of smell and taste

<sup>2</sup> Test conditions: butter biscuit, 24h, 20 °C

<sup>3</sup> Test conditions: cold water extract according to DIN EN 645

Parameter	Result
<b>Optical brighteners</b>	negative

LQ: Limit of quantification

**Summary:**

According to §2 subsection 6 no.1 of the German Food and Feed Code (LFGB) the tested sample is a food contact article.

According to article 3 subsection 1 c of the regulation (EC) 1935/2004 materials and articles shall be manufactured in compliance with good manufacturing practise so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could bring about a deterioration in the organoleptic characteristics thereof.

The tested sample meets this requirement.

According to BfR-recommendation XXXVI. (Paper, cardboard and paperboard for food contact) the extract of the finished product must not contain more than 10 µg/l lead and 5 µg/l cadmium.

The sample meets these requirements.

According to BfR-recommendation XXXVI. (Paper and board for food contact) the extract of the finished product must not contain more than 0,004 mg chromium(III)/dm<sup>2</sup> and chromium(VI) must not be detectable.

The sample meets this requirement.

According to the BfR Recommendation XXXVI. (Paper, cardboard and paperboard for food contact) the content of Diisopropylnaphthalene (DIPN) in the finished paper should be kept as low as technically feasible to minimize migration into food.

In the extract of the sample no DIPN was detected.

According to the BfR Recommendation XXXVI. (Paper, cardboard and paperboard for food contact) no more than 1,0 mg formaldehyde per dm<sup>2</sup> or 1,5 mg glyoxal per dm<sup>2</sup> must be detectable in the extract of the finished product.

The extract of the sample meets these requirements.

According to resolution AP (2002) 1 on paper and board materials and articles intended to come in contact with foodstuffs the finished product shall not contain more than 0.15 mg/kg pentachlorophenol (PCP).

**Test methods:****Sensorical test:** DIN 10955**Formaldehyde (extract):** EN 645 / following DIN EN 1541**Glyoxal (extract):** EN 645 / DIN 54 603**Diisopropylnaphthalene:** following DIN EN 14719**Heavy metals (extract):** EN 645 / DIN EN ISO 17294-2**Pentachlorophenol:** EN 645 / DIN EN ISO 15320**Optical brighteners:** UV light (qualitative, with colorbox VF0600, UV lamp 18W/BLB)**Hints:**

The test results refer exclusively to the samples specified. A reproduction in excerpts of the test report must not be made without the written consent of the test laboratory. Chemical and material blanks are taken into account when determining the results. The analysis formaldehyde, glyoxal and pentachlorophenol were performed in our accredited partner laboratories. Samples will be stored according to QMV 5.8 for max. 6 months (for exceptions and specific storage times see QMV 5.8). Glyoxal and Formaldehyde were analysed at the DEKRA lab in Halle. Pentachlorophenole was analysed at an accredited partner lab.

Stuttgart, 2020-08-03

**DEKRA Automobil GmbH**

Laboratory for Environmental and Product Analysis

Caroline Moritz  
Project manager

LQ: Limit of quantification

Worked out:  
Person in charge:DEKRA Automobil GmbH – Handwerkstr. 17 – 70565 Stuttgart  
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