

## Test Report

Test Report No.: 26783261

Issue Date: 24/07/15(DD/MM/YY)

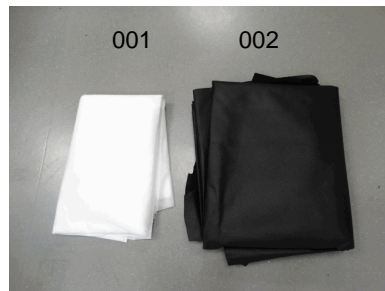
### Client Information:

Supplier No. : S1446  
Client Company Name : QINGDAO YIHE PACKING PRODUCTS  
Contact Address : NO.88 YINGPU ROAD, BEI'AN AREA, JIMO, QINGDAO, CHINA  
Client Contact Person : FEIFEI CUI  
IKEA Contacts Person : /  
Sample Receive Date/Test Start Date: 20/07/15

### Sample information by applicant:

Article No. : /  
Article Name : pp spunbond nonwoven fabric  
Article Date Stamp : 2015.07.09  
Material Producer : /  
Material Description : 100%polypropylene  
Material Batch Number/Production Date: /  
Test type : Prototype Test  
Fibre Content : 100%  
Construction : /  
Sample Desc : 001:white; 002:black

**26783261**



### Test Method:

Fibre Analysis by FTIR  
Formaldehyde content in textile, ISO14184-1  
pH value in textile, ISO3071  
Color fastness to perspiration ISO 105-E04  
Color fastness to water ISO 105-E01  
Color fastness to rubbing dry ISO 105-X12  
Determination of size ISO 22198  
Determination of Weight, Non-wovens (GSM) ISO 9073-1  
Flammability of textiles, 16 CFR 1610, IKEA General requirements



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A handwritten signature in blue ink, appearing to read 'Tony Watson', with a long horizontal flourish extending to the right.

Tony Watson  
ITTC General Manager

*The test results exclusively relate to the samples under test.  
The test report shall not be reproduced except in full, without the written approval of our laboratory.*

**Fibre Analysis**

(A) Test Result Summary

Testing Item	001	002
Main Material	Polypropylene (PP) *	Polypropylene (PP) *

Remark: \* By Fourier Transform Infrared Spectrometer (FTIR) Analysis Procedure.

(B) Test Method

Testing Item	Testing Method
Fibre Analysis	With Reference to ISO 1833: 2006& AATCC 20: 2013& AATCC 20A: 2014

**Determination Of Formaldehyde (Refer To IOS-TM-0007: AA-300792-5, IOS-PRF-0025: AA-35450-13, ISO 14184-1: 2011)**

001

	Formaldehyde content (mg/ kg)	IKEA Limit
Mean value	Not detectable	/

No.	1	2
Individual value	Not detectable	Not detectable

002

	Formaldehyde content (mg/ kg)	IKEA Limit
Mean value	Not detectable	/

No.	1	2
Individual value	Not detectable	Not detectable

- *The standard curve is performed once a month.*
- *The concentration of formaldehyde stock solution is certified by Hach-Lange.*

*Remark:*

- *Value below 16 ppm is reported as 'Not detectable'.*
- *The test sample is resistance to be wetting out of.*

**Determination Of pH Of Aqueous Extract (Refer To IOS-TM-0007: AA-300792-5, IOS-PRF-0025: AA-35450-13, ISO 3071: 2005, extract by distilled water)**

pH Value		IKEA Limit
001	002	/
6.6	6.7	/

<i>Temperature of extracting solution, °C</i>	<i>25</i>
<i>pH of distilled water</i>	<i>5.98</i>

*Remark:*

- *The test sample is resistance to be wetting out of.*

**Colour Fastness To Perspiration (Refer To IOS-TM-0007: AA-300792-5, IOS-PRF-0025: AA-35450-13, ISO 105-E04: 2013, ISO 105-A02: 1993, ISO 105-A03: 1993):**

001

	<u>Acid</u>	<u>Alkaline</u>	IKEA Limit
Colour Change	4-5	4-5	/

002

	<u>Acid</u>	<u>Alkaline</u>	IKEA Limit
Colour Change	4-5	4-5	/
Colour Staining			
-Acetate	4-5	4-5	/
-Bleached Cotton	4-5	4-5	
-Polyamide	4-5	4-5	
-Polyester	4-5	4-5	
-Acrylic	4-5	4-5	
-Wool	4-5	4-5	

- *Blind test is included for comparison.*
- *Pre-heating of the test device to the test temperature is not performed.*

**Colour Fastness To Water (Refer To IOS-TM-0007: AA-300792-5, IOS-PRF-0025: AA-35450-13, ISO 105-A02: 1993, ISO 105-A03: 1993, ISO 105-E01: 2013):**

	001	002	IKEA Limit
Colour Change	4-5	4-5	/
Colour Staining			
-Acetate	4-5	4-5	/
-Bleached Cotton	4-5	4-5	
-Polyamide	4-5	4-5	
-Polyester	4-5	4-5	
-Acrylic	4-5	4-5	
-Wool	4-5	4-5	

- *Blind test is included for comparison.*
- *Pre-heating of the test device to the test temperature is not performed.*

**Colour Fastness To Rubbing (Refer To IOS-TM-0007: AA-300792-5, IOS-PRF-0025: AA-35450-13, ISO 105-X12: 2002, ISO 105-A03: 1993):**

	001	IKEA Limit
<u>Colour Staining</u>		
Dry	4-5	/
Wet	4-5	/
<u>Colour Change</u>		
Dry	4-5	/
Wet	4-5	/

	002	IKEA Limit
<u>Colour Staining</u>		
Dry	4-5	/
Wet	4-5	/
<u>Colour Change</u>		
Dry	4-5	/
Wet	4-5	/

*Remark:*

- *Size of rubbing finger is 16mm diameter. Force 9N.*
- *Evaluation result is based on the combined effect of colour change and change in surface structure*
- *Specimen and rubbing cloth had been conditioned for 8h in an atmosphere of (20±2) °C and (65±2) % RH.*

**Determination Of Size (Refer To IOS-PRF-0025: AA-35450-13, ISO 22198: 2006):**

001	002	IKEA Tolerance
Full Width	Full Width	/
1.25 m	1.49 m	

• *The marked table was not used when measuring the length longer than 1m.*

**Determination of Weight, Non-wovens (Refer To IOS-TM-0007: AA-300792-5, IOS-PRF-0025: AA-35450-13, ISO 9073-1:1989):**

Fabric weight		IKEA Tolerance
001	002	/
31 g/m <sup>2</sup> *	89 g/m <sup>2</sup> *	

\* Comment at end of report

**Comment**

001

1	2	3
32 g/m <sup>2</sup>	31 g/m <sup>2</sup>	31 g/m <sup>2</sup>

002

1	2	3
89 g/m <sup>2</sup>	88 g/m <sup>2</sup>	91 g/m <sup>2</sup>

Conditioning temperature	(20±2) °c	Conditioning humidity	(65±4)%
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001		
Resistance to ignition by flame, 16 CFR 1610 (1-1-14 Edition)	Test result	
Resistance to ignition by flame, 16 CFR 1610 (1-1-14 Edition), <i>Evaluation according to IOS-TM-0007:AA-300792-5</i>	IBE	*
<i>The classification system used in 16 CFR 1610 shall not be reported.</i>		

002		
Resistance to ignition by flame, 16 CFR 1610 (1-1-14 Edition)	Test result	
Resistance to ignition by flame, 16 CFR 1610 (1-1-14 Edition), <i>Evaluation according to IOS-TM-0007:AA-300792-5</i>	IBE	*
<i>The classification system used in 16 CFR 1610 shall not be reported.</i>		

- \* Comment at end of report
- N.T. Test not performed, comment at end of report
- N.A. Test not applicable to tested object



**Comments**

001

Refer to 16 CFR Part 1610(1-1-14 Edition), according to IOS-TM-0007:AA-300792-5			
Place in an oven at 105±3 °C for 30±2 minutes, then move to a desiccator for at least 15 minutes			
16mm flame applied for 1 second			
Plain Surface:	✕	Raised Surface:	
<b>Preliminary trial results</b>			
Position	Time(s)	Result code*	Description of direction and surface
a	/	IBE	Face & Lengthwise
b	/	IBE	Face & Widthwise
c	/	IBE	Reverse & Lengthwise
d	/	IBE	Reverse & Widthwise
<b>Test results</b>			
Sample	Position	Time(s)	Result code*
1	a	/	IBE
2	a	/	IBE
3	a	/	IBE
4	a	/	IBE
5	a	/	IBE
<b>Average Flame Spread Time(s):</b>		/	
<p>* DNI Did Not Ignite; IBE Ignited But Extinguished; SF uc Surface Flash under cord.          SF pw Surface Flash part way; SF poi Surface Flash, at point of impingement;          SF only Surface Flash only, time in seconds, no damage to the base fabric;          SFBB Surface Flash Base Burn. Time in seconds, base burn starting at place other than impingement.          SFBB poi Surface Flash Base Burn. Time in seconds, base burn starting at the point of impingement.          SFBB poi* The asterisk (*) is accompanied by the statement "unable to make an absolute determination of the source of base burn".</p>			

002

<b>Refer to 16 CFR Part 1610(1-1-14 Edition), according to IOS-TM-0007:AA-300792-5</b>			
<b>Place in an oven at 105±3 °C for 30±2 minutes, then move to a dessicator for at least 15 minutes</b>			
<b>16mm flame applied for 1 second</b>			
<b>Plain Surface:</b>	×	<b>Raised Surface:</b>	
<b>Preliminary trial results</b>			
<b>Position</b>	<b>Time(s)</b>	<b>Result code*</b>	<b>Description of direction and surface</b>
a	/	IBE	Face & Lengthwise
b	/	IBE	Face & Widthwise
c	/	IBE	Reverse & Lengthwise
d	/	IBE	Reverse & Widthwise
<b>Test results</b>			
<b>Sample</b>	<b>Position</b>	<b>Time(s)</b>	<b>Result code*</b>
1	a	/	IBE
2	a	/	IBE
3	a	/	IBE
4	a	/	IBE
5	a	/	IBE
<b>Average Flame Spread Time(s):</b>		/	

\* **DNI** Did Not Ignite; **IBE** Ignited But Extinguished; **SF uc** Surface Flash under cord.  
**SF pw** Surface Flash part way; **SF poi** Surface Flash, at point of impingement;  
**SF only** Surface Flash only, time in seconds, no damage to the base fabric;  
**SFBB** Surface Flash Base Burn. Time in seconds, base burn starting at place other than impingement.  
**SFBB poi** Surface Flash Base Burn. Time in seconds, base burn starting at the point of impingement.  
**SFBB poi\*** The asterisk (\*) is accompanied by the statement "unable to make an absolute determination of the source of base burn".

-----End of Report-----