



# Test Report

No. F690101/LF-CTSAYSA22-00984R1

Issued Date: 2022. 02. 07

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**DAECHUN TEXTILE CO., LTD**  
29, Sinansandaehak-ro, Danwon-gu  
Ansan-si, Gyeonggi-do  
Korea

The following sample(s) was/were submitted and identified by/on behalf of the client as:-

<b>SGS File No.</b>	: AYS22-00984R1
<b>Sample Description</b>	: ONE SAMPLE OF 100 % COTTON CM20XCM20/70X60 44/45" TILDA FABRIC
<b>Color</b>	: FLOWERVASE PETROL
<b>Style no./Item no.</b>	: 100443
<b>Order No.</b>	: 2021-121D
<b>Country of Origin</b>	: N/A
<b>Country of Destination</b>	: N/A
<b>Proposed care Instruction</b>	: MACHINE WASH AT 60 °C, TUMBLE DRY LOW, COOL IRON
<b>Received Date</b>	: 2022. 01. 17
<b>Test Period</b>	: 2022. 01. 17 to 2022. 01. 21
<b>Purpose of Test Report</b>	: For Self Reference.
<b>Test Method</b>	: Please refer to next page(s).
<b>Test Results</b>	: Please refer to next page(s).
<b>Report Comments</b>	: The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report is not related to Korea Laboratory Accreditation Scheme.
<b>Supersede/Referral</b>	: This test report supersedes previous report number, "F690101/LF-CTSAYSA22-00984" issued by SGS Korea.
<b>Result summary</b>	: Selected test(s) as requested by client

**SGS Korea Co., Ltd.**

**Daesung Lee / Technical Manager**

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CQP-7081-F18 (01)

SGS Korea Co., Ltd.

322, The O valley, 76, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea 14117  
t +82 (0)31 4608 000 f +82 (0)31 4608 059 <http://www.sgsgroup.kr>

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## Test Conducted

## Results

### Dimensional Stability after 1<sup>st</sup> Washing, %

Test Method: ISO 3759: 2011, ISO 5077: 2007, ISO 6330:2012

Procedure No. 6N; Using horizontal axis, front-loading type machine: Machine wash at (60 ± 3) °C with 2kg total dry mass and 'ECE' detergent + sodium perborate + TAED, Tumble dry low less than 60 °C

Length -0.5  
Width -1.5

<Note> Minus (-) sign means a decrease and plus (+) sign means an increase in dimensions.

### Color Fastness to Rubbing, Grade

Test Method: ISO 105-X12:2016, Long direction: oblique, Size of rubbing finger: 16 mm dia.

Dry 4-5  
Wet 4

<Note> Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

### Fabric Weight

Test Method: ISO 3801: 1977

(g/m<sup>2</sup>) 173  
(oz/yd<sup>2</sup>) 5.1

### Flammability

Test Method: (The apparatus and methods of testing were those described in 16 CFR Part 1610 Standard for the Flammability of clothing textiles(CS - 191 - 53))

Fabric surface: Plain

Preliminary Testing: Original State : Length DNI/ Width DNI

After Drycleaning/Washing : Length DNI / Width DNI

Test sample direction performance: Original Stage : Length/Width

After Drycleaning/Washing : Length/Width

Original State After Dry cleaning & Washing

	Flame spread	Flame spread	
Flame Time(s)	(1) DNI	DNI	Class 1
	(2) DNI	DNI	
	(3) DNI	DNI	
	(4) DNI	DNI	
	(5) DNI	DNI	

Average - for # 5 specimens - for # 5 specimens

Classification :

**Class 1**

**Class 1**

Normal Flammability

**Class 2**

Intermediate Flammability

**Class 3**

Rapid and Intense Burning

**Plain Surface**

Textile Fabrics

> 3½ sec

—

< 3½ sec

**Raised Surface**

Textile Fabrics

> 7 sec, or between 0 to 7  
sec without ignite or fuse the  
base fabric

4 to 7 sec with base fabric  
ignites or fuses

< 4 sec with base fabric  
Ignites or fuses

<Note> DNI= Did not ignite

\* Dry cleaning / Washing Procedure are according to 16 CFR PART 1610.6.(b).(1).

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## Component List / List of Materials

Sample No.	Material No.	Component	Material	Color	Fiber Type*	Remark
A	1	Cotton Woven Fabric	Textile	Multi	Type A	/

\* This fiber type identification is for the selection of azo dye testing procedure (i.e. EN 14362-1/3:2017).

### Note:

Type A = Textile contains natural fibers only and/or regenerated fibers exclude the group of acetate.

Type B = Textile contains polyester fibers only

Type C = Textile contains man-made fibers and/or man-made blended fibers (except polyester fibers)

## Result(s):

### Azo Dyes and Arylamine Salts (Direct Reduction)

Test Method: With reference to EN ISO 14362-1:2017. Analysis was conducted by GC-MS/HPLC-DAD. Determination of 4-aminoazobenzene (CAS No.:60-09-3) - EN ISO 14362-3:2017. Analysis was conducted by GC-MS/HPLC-DAD.

	CAS-No.	Result
	<b>1</b>	
4-Aminobiphenyl	92-67-1	n.d.
Benzidine	92-87-5	n.d.
4-Chlor-o-toluidine	95-69-2	n.d.
2-Naphthylamine	91-59-8	n.d.
o-Aminoazotoluene	97-56-3	n.d.
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	n.d.
4-Chloroaniline	106-47-8	n.d.
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	n.d.
4,4'-Diaminodiphenylmethane, MDA	101-77-9	n.d.
3,3'-Dichlorobenzidine	91-94-1	n.d.
3,3'-Dimethoxybenzidine	119-90-4	n.d.
3,3'-Dimethylbenzidine	119-93-7	n.d.
4,4'-methylenedi-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	n.d.
p-Cresidine	120-71-8	n.d.
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	n.d.
4,4'-Oxydianiline	101-80-4	n.d.
4,4'-Thiodianiline	139-65-1	n.d.
o-Toluidine	95-53-4	n.d.
4-methyl-m-phenylenediamine / 2,4-Toluyldiamine, TDA	95-80-7	n.d.
2,4,5-Trimethylaniline	137-17-7	n.d.
4-aminoazobenzene	60-09-3	n.d.
O-Anisidine	90-04-0	n.d.
2,6-Xylidine	87-62-7	n.d.
2,4-Xylidine	95-68-1	n.d.
4-chloro-o-toluidinium chloride+	3165-93-3	n.d.
2-Naphthylammoniumacetate+	553-00-4	n.d.

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4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate+	39156-41-7	n.d.
2,4,5-trimethylaniline hydrochloride+	21436-97-5	n.d.

Note: n.d. = Not Detected  
mg/kg = ppm  
\* = Exceed the limit  
+ = Result was back calculated based on the determination of its amine  
# = result over 1/2 or 1/3 of client requirement. There is a possibility of failure on one or more components. Retesting on individual component is recommended to determine the compliance of each component to the requirement  
Δ = result over 1/2 or 1/3 of client requirement. There is a possibility of failure on one or more components. Retesting on individual component has been carried out as requested to determine the compliance of each component to the requirement

@ = The amine was detected according to EN ISO 14362-1:2017 with the reducing agent. A similar result was obtained from the procedure carried out without the reducing agent. According to EN ISO 14362-1:2017 Annex C.2.1.2.2, the amine originated from a source other than azo colorants.

^ = The amine was detected according to EN ISO 14362-1:2017 with the reducing agent. Confirmation procedure was carried out without reducing agent, according to EN ISO 14362-1:2017 Annex C.2.1.2.2, the amine originated from azo colorants. Reporting limit = 5 mg/kg (each)

Remark: Direct reduction refers to the extraction and reduction according to EN ISO 14362-1:2017 Clause 10.2 and relevant clauses.

4-Aminodiphenyl (CAS No. 92-67-1), 2-Naphthylamine (CAS No. 91-59-8) and 2,4-Diaminoanisole (CAS No. 615-05-4) can be indirectly generated from some colorants which do not contain these amines azo bound. The use of banned azo colorants cannot be reliably ascertained without additional information.

In case PU is used, e.g. PU Foams or coatings, it cannot be ruled out that MDA (CAS No. 101-77-9) and TDA (CAS No. 95-80-7) can be released from PU material, not from banned azo colorant. Similarly, for pigment prints, MDA will be released from a chemical fixing agent.

EN ISO 14362-1:2017 will enable further cleavage of 4-AAB (CAS No. 60-09-3) to non-forbidden amines: aniline and p-phenylenediamine. If aniline and/or p-phenylenediamine is not found, 4-AAB is considered as "n.d." (i.e. <5.0 mg/kg). Otherwise, EN ISO 14362-3:2017 will be employed to verify the presence of 4-AAB.

Picture of Sample as Received :



**AYSA22-00984R1**

\*\*\* End of Report \*\*\*