Test Report

No. 5435517 Date: 02/09/2021

DAkkS Deutsche Akkreditierungsstelle D-PL-14115-02-00

Smart Light Solutions GmbH
Linsenkamp 8b
DE-22175 Hamburg
Germany

The following sample(s) was (were) submitted and identified by the client as:

Original Sample ID	Sample Description	Sample Receipt Date
210990043	FOGGY Antibeschlag- und Reinigungstuch	25/08/2021

SGS Customer No	:	10202444
SGS Order No	:	5891074
Test Report Version	:	1
Buyer	:	-
Order No.	:	- dt. 26/08/2021
Country of Origin	:	-
Test Performing Period	:	27/08/2021 –02/09/2021
Test Performed	:	Selected test(s) as requested by applicant
Overall Conclusion	:	**PASS**
Test Results	:	Please refer to the next pages

SGS INSTITUT FRESENIUS GmbH

Dieser Prüfbericht wurde elektronisch erstellt und freigegeben / This test report was electronically created and released:

	Datum / date	Name / name	Funktion / function	Abteilung /department
Erstellung / created	01.09.2021	i.A. Marilyn Mohr	Customer Service Assistant	Connectivity & Products
Freigabe / released	02.09.2021	i.A. Christian Herzig	Project Manager	Connectivity & Products - Softlines

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Performed Test Summary:

Test	Result
AZO Dyes Mixed Fibres	M
4-Aminoazobenzene Natural Fibres	M
4-Aminoazobenzene Synthetic Fibres	M
Formaldehyde (Textile)	M
Allergenic Disperse Dyes	M
Carcinogenic Dyes	M
Alkylphenols (AP) & Alkylphenolethoxylates (APEO)	M
Extractable Heavy Metals	M
PFOA/ PFOS incl. related substances and salts	M

Remarks: M = Meets Client's requirement
F = Does not meet Client's requirement
I = Inconclusive
- = No specified requirement

Note: Conclusions on pass/fail are based on the test result from the actual sampling of the received sample(s).

Conclusions are based on the relevant requirements; measurement uncertainties are not taken into account. Only results above the relevant detection limit are taken into account for the calculation of sums.

Test was conducted on composite of random pa
result is the overall result.

The composite sampling method is based on th
the testing standard.

For 2-composite mix with results exceeding one half of the relevant requirements or 3-composite mix with results exceeding one third of the relevant requirements, the composite sample may have the possibility of one or more components that can lead to a failure result, it is recommended to test on individual basis.

Component List

Component No	Component-ID	Description	Color(s)	Material	Original Sample ID
1	210992436	main fabric - No. 1	grey	synthetic	210990043
2	210992437	main fabric - No. 2	grey	synthetic	210990043

Analytical results

AZO Dyes Mixed Fibres

Test Method
DIN EN ISO 14362-1 2017-05, Analysis conducted with GC-MS/LC-DAD
DIN EN ISO 14362-3 2017-05, Analysis conducted with GC-MS/LC-DAD

Sample(s) / Subsample(s)	Unit	Limit of Quantification	Direkte Reduktion / Direct reduction 1	Farbstoffextraktion / colorant extraction 1
4-Aminobiphenyl (92-67-1)	mg/kg	5.0	n.d.	n.d.
Benzidine (92-87-5)	mg/kg	5.0	n.d.	n.d.
4-Chloro-o-toluidine (95-69-2)	mg/kg	3.9	n.d.	n.d.
2-Naphthylamine (91-59-8)	mg/kg	3.5	n.d.	n.d.
o-Aminoazotoluene (97-56-3) [1]	mg/kg	5.0	n.d.	n.d.
5-Nitro-o-toluidine (99-55-8) [1]	mg/kg	5.0	n.d.	n.d.
4-Chloraniline (106-47-8)	mg/kg	5.0	n.d.	n.d.
2,4-Diaminoanisole (615-05-4)	mg/kg	2.9	n.d.	n.d.
4,4'-Diaminodiphenylmethane (101-77-9)	mg/kg	5.0	n.d.	n.d.
3,3'-Dichlorobenzidine (91-94-1)	mg/kg	5.0	n.d.	n.d.
3,3' -Dimethoxybenzidine (119-90-4)	mg/kg	5.0	n.d.	n.d.
3,3' -Dimethylbenzidine (119-93-7)	mg/kg	5.0	n.d.	n.d.
3,3'-Dimethyl-4,4'-diaminodiphenylmethane (838-88-0)	mg/kg	5.0	n.d.	n.d.
6-Methoxy-m-toluidine (120-71-8)	mg/kg	5.0	n.d.	n.d.
4,4'-Methylene-bis-(2-chloroaniline) (101-14-4)	mg/kg	5.0	n.d.	n.d.
4,4'-Oxydianiline (101-80-4)	mg/kg	5.0	n.d.	n.d.
4,4'-Thiodianiline (139-65-1)	mg/kg	5.0	n.d.	n.d.
o-Toluidine (95-53-4)	mg/kg	5.0	n.d.	n.d.
2,4-Toluylenediamine (95-80-7)	mg/kg	5.0	n.d.	n.d.
2,4,5-Trimethylaniline (137-17-7)	mg/kg	3.9	n.d.	n.d.
o-Anisidine (90-04-0)	mg/kg	5.0	n.d.	n.d.
4-Aminoazobenzene (60-09-3)	mg/kg	5.0	n.d. ^	n.d. ^
2,4-Xylidine (95-68-1)	mg/kg	5.0	n.d.	n.d.
2,6-Xylidine (87-62-7)	mg/kg	5.0	n.d.	n.d.
4-Chloro-o-toluidinium chloride+ (3165-93-3)	mg/kg	5.0	n.d.	n.d.
2-Naphthylammoniumacetate+ (553-00-4)	mg/kg	5.0	n.d.	n.d.
4-Methoxy-m-phenylendiammonium sulphate+ (39156-41-7)	mg/kg	5.0	n.d.	n.d.
2,4,5-Trimethylaniline hydrochloride+ (21436-97-5)	mg/kg	5.0	n.d.	n.d.
Conclusion			**Pass**	**Pass**

Note:
n.d. = not detected

Requirement: ≤ 30 mg/kg (Limit according to Entry 43 of Regulation EC 552&2009 amending Annex XVII of the Reach Regulation No. 1907/2006)

Comment:
Whenever 4-aminodiphenyl (CAS number 92-67-1), 2-naphthylamine (CAS number 91-59-8) and 4-methoxy-m-phenylene-diamine (CAS number 615-05-4) is found, the use of banned azo colorants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colorants used.
In case polyurethane materials are used, e.g. PU foams and coatings and in prints, it cannot be ruled out that certain amines, e.g. 4,4'-methylene-dianiline (MDA, CAS number 101-77-9) and 2,4-toluylen-diamine (TDA, CAS number 95-80-7) are released from the PU component and not from a banned azo colorant.
In case of pigment prints care has to be taken that 4,4'-methylene-dianiline (MDA, CAS number 101-77-9) is not released from a source of banned azo colorants but from e.g. a chemical fixing agent.
^ = Determination according to EN 14362-3, as Aniline (CAS No. 62-53-3) and/ or 1,4-Phenylendiamin (CAS No. 106-50-3) were detected.

[1]= During analysis, o-Aminoazotoluene and 2-Amino-4-nitrotoluene decompose into o-Toluidine and 2,4-Toluylenediamine, respectively. Absence of o-Toluidine and 2,4-Toluylenediamine indicates absence of o-Aminoazotoluene and 2-Amino-4-nitrotoluene.

Formaldehyde (Textile)

Test Method
DIN EN ISO 14184-1 2011-12, Analysis was performed with UV/VIS Spectrometry

Sample(s) /Subsample(s)	**Result 1**
Free Formaldehyde	n.d.
Conclusion	**Pass**

Note:
n.d. = not detected
Reporting Limit = 10 mg/kg

Requirement: < 75 mg/kg with skin contact (Limit according to Entry 72 of Regulation EC 552&2009 amending Annex XVII of the Reach Regulation
No. 1907/2006)

Allergenic Disperse Dyes

Test Method
DIN 54231 2005-11, with use of HPLC-DAD-MS

Sample(s) /Subsample(s)	**Result 1**
Disperse Blue 1 (2475-45-8)	n.d.
Disperse Blue 3 (2475-46-9)	n.d.
Disperse Blue 7 (3179-90-6)	n.d.
Disperse Blue 26 (3860-63-7)	n.d.
Disperse Blue 35 (12222-75-2)	n.d.
Disperse Blue 102 (12222-97-8)	n.d.
Disperse Blue 106 (12223-01-7)	n.d.
Disperse Blue 124 (61951-51-7)	n.d.
Disperse Brown 1 (23355-64-8)	n.d.
Disperse Orange 1 (2581-69-3)	n.d.
Disperse Orange 3 (730-40-5)	n.d.
Disperse Orange 37/59/76 (13301-61-6)	n.d.
Disperse Red 1 (2872-52-8)	n.d.
Disperse Red 11 (2872-48-2)	n.d.
Disperse Red 17 (3179-89-3)	n.d.
Disperse Yellow 1 (119-15-3)	n.d.
Disperse Yellow 3 (2832-40-8)	n.d.
Disperse Yellow 9 (6373-73-5)	n.d.
Disperse Yellow 39 (12236-29-2)	n.d.
Disperse Yellow 49 (54824-37-2)	n.d.
Conclusion	**Pass**

Note:
n.d. = not detected
Reporting Limit = 15 mg/kg

Requirement: < 50 mg/kg (Limit according to Entry 72 of Regulation EC 552&2009 amending Annex XVII of the Reach Regulation No. 1907/2006)

Carcinogenic Dyes

Test Method
DIN 54231 2005-11, with use of HPLC-DAD-MS

Sample(s) /Subsample(s)	**Result 1**
Acid Red 26 (3761-53-3)	n.d.
Acid Red 114 (6459-94-5)	n.d.
Acid Violet 49 (1694-09-3)	n.d.
Basic Blue 26 (2580-56-5)	n.d.
Basic Green 4 (569-64-2/2437-29-8/10309-95-2)	n.d.
Basic Red 9 (569-61-9)	n.d.
Basic Violet 1 (8004-87-3)	n.d.
Basic Violet 3 (548-62-9)	n.d.
Basic Violet 14 (632-99-5)	n.d.
Direct Black 38 (1937-37-7)	n.d.
Direct Blue 6 (2602-46-2)	n.d.
Direct Blue 15 (2429-74-5)	n.d.
Direct Brown 95 (16071-86-6)	n.d.
Direct Red 28 (573-58-0)	n.d.
Disperse Blue 1 (2475-45-8)	n.d.
Disperse Orange 11 (82-28-0)	n.d.
Disperse Orange 149 (85136-74-9)	n.d.
Disperse Yellow 3 (2832-40-8)	n.d.
Disperse Yellow 23 (6250-23-3)	n.d.
Solvent Blue 4 (6786-83-0)	n.d.
Solvent Yellow 1 (60-09-3)	n.d.
Solvent Yellow 2 (60-11-7)	n.d.
Solvent Yellow 3 (97-56-3)	n.d.
Solvent Yellow 14 (842-07-9)	n.d.
Conclusion	**Pass**

Note:
n.d. = not detected
Reporting Limit = 15 mg/kg

Requirement: < 50 mg/kg (Limit according to Entry 72 of Regulation EC 552&2009 amending Annex XVII of the Reach Regulation No. 1907/2006)

Alkylphenolethoxylates (APEO)

Test Method
DIN EN ISO 18254-1 2016-09, Quantification performed by LC-MS after extraction with methanol in ultrasonic bath

Sample(s) /Subsample(s)	**Result 1**
Nonylphenol Ethoxylates (NPEOs)	n.d.
Octylphenol Ethoxylates (OPEOs)	n.d.
Total Alkylphenol Ethoxylates (APEOs)	-
Conclusion (sum APEO)	**Pass**

Note:
n.d. = not detected
Reporting Limit = 10 mg/kg

Requirement: Nonylphenol Ethoxylates < 100 mg/kg (Limit according to the Entry 46a Annex XVII of the REACH Regulation No. 1907/2006 and all amendments, valid from 03.02.2021)

Extractable Heavy Metals

Test Method
ICP-MS acc. to DIN EN ISO 16711-2:2015 , extraction acc. to EN ISO 105-E04

Sample(s) /Subsample(s)	**Result 1**
Arsenic (As)	n.d.
Lead (Pb)	n.d.
Cadmium (Cd)	n.d.
Chromium (Cr) [1]	n.d.
Conclusion	**Pass**

Note:
n.d. = not detected
Reporting Limit = 0.1 mg/kg

Requirement: < 1 mg/kg

[1] = Absence of Chromium indicates absence of Chromium(VI)

PFOA and related Substances/ PFOS and related substances

Test Method
SOP M 1227 - Analyse mittels LC-MS/MS/ Analysis conducted with LC-MS/MS

Subsample			*Result* 2		
Methode			reporting limit (µg/kg)	reporting limit (µg/m²)	SOP M1227
Fabric weight per unit area (g/m²)	273				
Sodium perfluoro-1-octanesulfonate	PFOS	1763-23-1	2	0.6	n.d.
N-methylperfluoro-1-octanesulfonamide	N-MeFOSA-M	31506-32-8	2	0.6	n.d.
N-ethylperfluoro-1-octanesulfonamide	N-EtFOSA-M	4151-50-2	2	0.6	n.d.
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	N-MeFOSE-M	24448-09-7	2	0.6	n.d.
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol	N-EtFOSE-M	1691-99-2	2	0.6	n.d.
Perfluoro-n-octanoic acid	PFOA	335-67-1	2	-	**10 µg/kg**
Sodium 1H,1H,2H,2H-perfluorodecane sulfonate	H4PFDS ; 8:2 FTS	39108-34-4	4	-	n.d.
2H,2H- Perfluorodecanoic acid	H2PFDA ; 8:2 FTCA	27854-31-5	4	-	n.d.
2H,2H,3H,3H-Perfluoroundecanoic acid	H4PFUnDA ; 8:3FTCA	34598-33-9	6	-	n.d.
Ethyl perfluorooctanoate	EtPFOA	3108-24-5	25	-	n.d.
2-Perfluorooctyl ethanol	8:2 FTOH	678-39-7	40	-	**46 µg/kg**
1H,1H,2H,2H-Perflurodecyl acrylate	8:2 FTAcr	27905-45-9	25	-	n.d.
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecyl methacrylate	8:2 FTMA	1996-88-9	25	-	n.d.
Conclusion					**Pass**

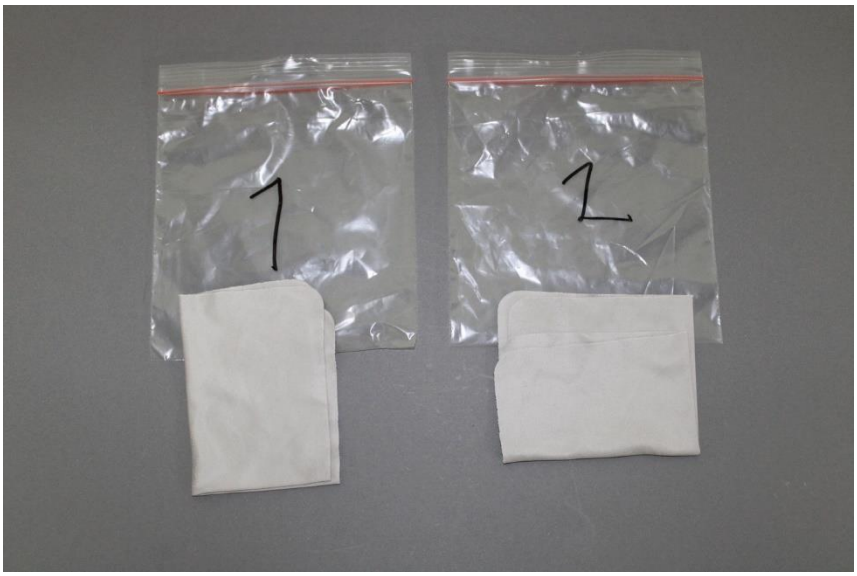
Note:
n.d. = not detected

Requirement:

PFOA - 25 µg/kg, PFOA related Substances 1000 ppb (1000µg/kg)

PFOS and related substances - 1 µg/m²

Attachment: Picture of sample



*** End of test report ***