

DURIO PPE SDN. BHD.

16, JALAN TEMENGGONG, 81100 JOHOR BAHRU, JOHOR, MALAYSIA

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

Sample Description : ONE SAMPLE OF SOLID COLOR PP NON-WOVEN SPUNBOND FABRIC IN DARK BLUE.

Colour : DARK BLUE

Sample Receiving Date : Feb 10, 2021

Testing Period : Feb 11, 2021 - Feb 19, 2021

Test Result(s) : Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s).

Test Performed : Selected test(s) as requested by applicant

Signed for and on behalf of
SGS (Hong Kong) Limited



Liu Wang, Andy, Technical Manager

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COMPONENT LIST / List of Materials

Sample No.	Component No.	Description	Material	Color	Remark
A	1	non-woven fabric	Synthetic Fibers	navy	/

Test Results :

Azo Dyes (Direct Reduction)

Test Method : Textile: According to EN ISO 14362-1:2017. Analysis was performed by GC-MS/HPLC-DAD. Determination of 4-aminoazobenzene (CAS No.:60-09-3)-EN ISO 14362-3:2017; with the use of GC-MS/ HPLC-DAD.

<u>Test Item(s)</u>	<u>CAS NO.</u>	1
4-Aminobiphenyl	92-67-1	ND
Benzidine	92-87-5	ND
4-chloro-o-toluidine	95-69-2	ND
2-naphthylamine	91-59-8	ND
o-aminoazotoluene	97-56-3	ND
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	ND
4-chloroaniline	106-47-8	ND
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	ND
4,4'-Diaminodiphenylmethane (MDA)	101-77-9	ND
3,3'-dichlorobenzidine	91-94-1	ND
3,3'-dimethoxybenzidine	119-90-4	ND
3,3'-dimethylbenzidine	119-93-7	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane / 4,4'-methylenedi-o-toluidine	838-88-0	ND
p-cresidine / 2-methoxy-5-methylaniline / 6-methoxy-m-toluidine	120-71-8	ND
4,4'-methylene-bis-(2-chloroaniline)	101-14-4	ND
4,4'-oxydianiline	101-80-4	ND
4,4'-thiodianiline	139-65-1	ND
o-toluidine	95-53-4	ND
4-methyl-m-phenylenediamine / 2,4-Toluylendiamine (TDA)	95-80-7	ND
2,4,5-trimethylaniline	137-17-7	ND
4-aminoazobenzene	60-09-3	ND
O-Anisidine	90-04-0	ND
Conclusion		PASS

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Notes :

Note: n.d. = not detectable

mg/kg = ppm

* = Exceed the limit

= 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)

Requirement: 30 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.

Test Method : Textile: According to EN ISO 14362-1:2017. Analysis was performed by GC-MS/HPLC-DAD.
Determination of 4-aminoazobenzene (CAS No.:60-09-3)-EN ISO 14362-3:2017; with the use of GC-MS/ HPLC-DAD.

<u>Test Item(s)</u>	<u>CAS NO.</u>	1
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4,4'-oxydianiline	101-80-4	ND
4,4'-thiodianiline	139-65-1	ND
o-toluidine	95-53-4	ND
4-methyl-m-phenylenediamine / 2,4-Toluylenediamine (TDA)	95-80-7	ND
2,4,5-trimethylaniline	137-17-7	ND
4-aminoazobenzene	60-09-3	ND
O-Anisidine	90-04-0	ND
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*** End of Report ***

Sample Photo



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