

Test Report

No. CANML1920833701

Date: 31 Oct 2019

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SHENZHEN MING LANG TEXTILE TECHNOLOGY CO.,LTD
 3/F,BUILDING 2,NO.1,YONGHUA STREET,FENGHUANG COMMUNITY,PINGHU STREET,LONGGANG
 DISTRICT,SHENZHEN CITY,CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : WAXED POLYESTER
 THREAD

SGS Job No. : SZIN1910015191PC - SZ
 Material : POLYESTER
 Specification : 25#
 Manufacturer : SHENZHEN MING LANG TEXTILE TECHNOLOGY CO.,LTD
 Date of Sample Received : 24 Oct 2019
 Testing Period : 24 Oct 2019 - 31 Oct 2019
 Test Requested : Selected test(s) as requested by client.
 Test Method : Please refer to next page(s).
 Test Results : Please refer to next page(s).

Result Summary :

Test Requested	Conclusion
EN 71-3:2019 - Migration of Certain Elements (Category III: Scrapped-off toy material)	PASS
Azo Dyes	PASS
Formaldehyde	See Results

Signed for and on behalf of
 SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Jessie Li

Jessie Li
 Approved Signatory



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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN19-208337.001	Brown thread

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

EN 71-3:2019 - Migration of Certain Elements (Category III: Scrapped-off toy material)

Test Method : With reference to EN 71-3:2019, analysis was performed by ICP-OES.
Chromium (VI) was analyzed by IC-UV/LC-ICP-MS.

Test Item(s)	Limit	Unit	MDL	001
Soluble Aluminum (Al)	70000	mg/kg	50	ND
Soluble Arsenic (As)	47	mg/kg	10	ND
Soluble Boron (B)	15000	mg/kg	50	ND
Soluble Barium (Ba)	18750	mg/kg	50	ND
Soluble Cadmium (Cd)	17	mg/kg	5	ND
Soluble Cobalt (Co)	130	mg/kg	10	ND
Soluble Chromium (III) (Cr III)	460	mg/kg	5	ND
Soluble Copper (Cu)	7700	mg/kg	50	ND
Soluble Mercury (Hg)	94	mg/kg	10	ND
Soluble Manganese (Mn)	15000	mg/kg	50	ND
Soluble Nickel (Ni)	930	mg/kg	10	ND
Soluble Lead (Pb)	23	mg/kg	10	ND
Soluble Antimony (Sb)	560	mg/kg	10	ND
Soluble Selenium (Se)	460	mg/kg	10	ND
Soluble Zinc (Zn)	46000	mg/kg	50	ND
Soluble Strontium (Sr)	56000	mg/kg	50	ND
Soluble Tin (Sn)	180000	mg/kg	4.9	ND
Soluble Organic Tin	12	mg/kg	-	ND
Soluble Chromium (VI) (Cr VI)	0.053	mg/kg	0.020	ND

Conclusion

PASS



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Notes :

1. Soluble Chromium (III) = Soluble Total Chromium - Soluble Chromium (VI)

2. Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in EN 71-3:2019.

Azo Dyes

Test Method: With reference to ISO 14362-1:2017, analysis was performed by GC-MS/HPLC-DAD.

Determination of 4-aminoazobenzene (CAS No.:60-09-3) with reference to ISO 14362-3:2017, analysis was performed by GC-MS//HPLC-DAD.

Test Item(s)	CAS No.	Max. Limit	Unit	MDL	001	
					Method A	Method B
4-Aminobiphenyl	92-67-1	30	mg/kg	5	ND	ND
Benzidine	92-87-5	30	mg/kg	5	ND	ND
4-Chlor-o-toluidine	95-69-2	30	mg/kg	5	ND	ND
2-Naphthylamine	91-59-8	30	mg/kg	5	ND	ND
o-Aminoazotoluene	97-56-3	30	mg/kg	5	ND	ND
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	30	mg/kg	5	ND	ND
4-Chloroaniline	106-47-8	30	mg/kg	5	ND	ND
4-methoxy-m-phenylenediamine /2,4-Diaminoanisole	615-05-4	30	mg/kg	5	ND	ND
4,4'-Diaminodiphenylmethane	101-77-9	30	mg/kg	5	ND	ND
3,3'-Dichlorobenzidine	91-94-1	30	mg/kg	5	ND	ND
3,3'-Dimethoxybenzidine	119-90-4	30	mg/kg	5	ND	ND
3,3'-Dimethylbenzidine	119-93-7	30	mg/kg	5	ND	ND
4,4'-methylene-di-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenyl methane	838-88-0	30	mg/kg	5	ND	ND
p-Cresidine	120-71-8	30	mg/kg	5	ND	ND
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	30	mg/kg	5	ND	ND
4,4'-Oxydianiline	101-80-4	30	mg/kg	5	ND	ND
4,4'-Thiodianiline	139-65-1	30	mg/kg	5	ND	ND



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o-Toluidine	95-53-4	30	mg/kg	5	ND	ND
4-methyl-m-phenylenediamine / 2,4-Toluyldiamine	95-80-7	30	mg/kg	5	ND	ND
2,4,5-Trimethylaniline	137-17-7	30	mg/kg	5	ND	ND
4-aminoazobenzene	60-09-3	30	mg/kg	5	ND	ND
O-Anisidine	90-04-0	30	mg/kg	5	ND	ND
2,4-Xylidine	95-68-1	30	mg/kg	5	ND	ND
2,6-Xylidine	87-62-7	30	mg/kg	5	ND	ND
Comment	-	-	-	-	Pass	Pass

Notes:

- (1) Method A is direct reduction, direct reduction refers to the extraction and reduction according to ISO 14362-1:2017 clause 10.2 and relevant clauses. Method B is colorant extraction, colorant extraction refers to the colourant extraction and subsequent reduction according to ISO 14362-1:2017 clause 10.1 and relevant clauses.
- (2) The ISO 14362-1:2017 methods will enable further cleavage of 4-aminoazobenzene to non-forbidden amines: aniline and 1,4-phenylenediamine, therefore, the test method of ISO 14362-3:2017 was employed to verify the presence of 4-aminoazobenzene.
- (3) Max. limit specified by entry 43 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2002/61/EC).
- (4) Whenever 4-aminodiphenyl (CAS number 92-67-1), 2-naphylamine (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.

Formaldehyde

Test Method : With reference to ISO 14184-1:2011, analysis was performed by UV-Vis.

Test Item(s)	CAS NO.	Unit	MDL	001
Formaldehyde	50-00-0	mg/kg	16	ND



Sample photo :



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*** End of Report ***

