



# TEST REPORT

Technical Report: (6719)172-0621

June 28, 2019

Date Received: June 22, 2019

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**DYECHEM INTERNATIONAL PVT. LTD.**

**ATTN: RANJEETA RAI**

5 ASHU BISWAS ROAD, NEAR CHAKRABERIA SCHOOL, PADAPUKUR,  
BHOWANIPUR, KOLKATA-700025, WEST BENGAL, INDIA

Sample Description: : (A) METALLIC GLD YELLOW XN PRINTED FABRIC  
(B) METALLIC FOILSTAR GOLD PRINTED FABRIC  
(C) GLD CHANDI PRINTED FABRIC  
(Sample received in good condition)

Color:	/	Style No:	/
Order No.:	/	Item:	/
Model No.:	/	PI NO.:	/
Leather Name:	/	Product End Use:	/
Vendor:	DYECHEM INTERNATIONAL PVT. LTD.	Age Group:	/
Tannery Name:	/	Supplier:	/
Pre-testing client name:	/	Country of Origin:	/
Test Period:	June 24, 2019 to June 28, 2019	Country of Destination:	/

## SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION	REMARK
FORMALDEHYDE TEST	PASS	
EXTRACTABLE HEAVY METALS TEST	PASS	
AZO DYES CONTENT	PASS	
pH VALUE TEST	PASS	

**NOTE: 1.** The test has been conducted as per vendor's request.

**2.** Confirmation received on dated 26<sup>th</sup> June, 2019.

**BUREAU VERITAS CONSUMER PRODUCTS SERVICES (INDIA) PVT. LTD.**

## SIGNATORIES

  
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(Manager – Analytical)

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**FOR ANY INVOICING MATTER: MR. AMIT ROY**

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C/N: (6719)172-0621 RS/SA

**"Pls. refer the website [www.nabl-india.org](http://www.nabl-india.org) to view our Scope of accredited Test"**

Bureau Veritas Consumer  
Products Services (India) Pvt. Ltd.,  
C-19, Sec - 7 Noida (U.P.) 201301  
PH: 4368283/205

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**Photo of the Submitted Sample**



## TEST RESULTS

### FORMALDEHYDE

**Test Method** : BS EN ISO 14184-1: 2011

**Tested Item(s)** : **A** METALLIC GLD YELLOW XN PRINTED FABRIC  
**B** METALLIC FOILSTAR GOLD PRINTED FABRIC  
**C** GLD CHANDI PRINTED FABRIC

<b>Maximum Limit:</b>	<b>75 mg/kg</b>		
<b>Tested Item(s)</b>	<b>Result</b>	<b>Unit</b>	<b>Conclusion</b>
<b>A+B+C</b>	ND	mg/kg	<b>PASS</b>

Note:

ND = Not detected

“>” = More than

mg/kg = milligram per kilogram

Detection Limit (mg/kg): 5

### Extractable Heavy Metals Content

**Test Method** : Artificial perspiration solution extraction according to ISO 105 E04:1996 and analyzed by Inductively Coupled Plasma Mass Spectrometer (ICP-MS) or ultraviolet-visible (UV-Vis) spectrophotometer.

**Tested Item(s)** : **A** METALLIC GLD YELLOW XN PRINTED FABRIC  
**B** METALLIC FOILSTAR GOLD PRINTED FABRIC  
**C** GLD CHANDI PRINTED FABRIC

<b>Maximum Limit:</b>	<b>Class I</b>	<b>Element (mg/kg)</b>								
		<b>As</b>	<b>Pb</b>	<b>Cd</b>	<b>Cr</b>	<b>Co</b>	<b>Cu</b>	<b>Ni</b>	<b>Sb</b>	<b>Hg</b>
		0.2	0.2	0.1	2.0	1.0	25	1.0 (0.5) <sup>#</sup>	30	0.02
	<b>Class II &amp; III</b>	<b>Element (mg/kg)</b>								
		<b>As</b>	<b>Pb</b>	<b>Cd</b>	<b>Cr</b>	<b>Co</b>	<b>Cu</b>	<b>Ni</b>	<b>Sb</b>	<b>Hg</b>
		1.0	1.0	0.1	2.0 (200*)	4.0	50	4.0 (1.0) <sup>#</sup>	30	0.02
	<b>Class IV</b>	<b>Element (mg/kg)</b>								
		<b>As</b>	<b>Pb</b>	<b>Cd</b>	<b>Cr</b>	<b>Co</b>	<b>Cu</b>	<b>Ni</b>	<b>Sb</b>	<b>Hg</b>
		1.0	1.0	0.1	2.0 (200*)	4.0	50	4.0 (1.0) <sup>#</sup>	-	0.02

-	<b>Unit</b>	<b>Result</b>		
<b>Tested Item(s)</b>	-	<b>A</b>	<b>B</b>	<b>C</b>
<b>Parameter</b>	-	-	-	-
Arsenic (As)	mg/kg	ND	ND	ND
Lead (Pb)	mg/kg	ND	ND	ND
Cadmium (Cd)	mg/kg	ND	ND	ND
Chromium (Cr)	mg/kg	ND	ND	ND
Cobalt (Co)	mg/kg	ND	ND	ND
Copper (Cu)	mg/kg	ND	ND	ND
Nickel (Ni)	mg/kg	0.17	0.26	ND
Antimony (Sb)	mg/kg	ND	ND	ND
Mercury (Hg)	mg/kg	ND	ND	ND
<b>Conclusion</b>	-	<b>PASS</b>	<b>PASS</b>	<b>PASS</b>

Note:

ND = Not detected

“>” = More than

mg/kg = milligram per kilogram

Detection Limit (mg/kg):

Each (As & Cd) 0.02; Each (Co, Cr, Ni & Pb) 0.1; Each Sb 0.5; Cu 5; Hg 0.005

Remark:

## TEST RESULTS

### AZO DYES TEST

**Test Method I** : EN 14362-1:2017

**Test Method II** : ISO 17234-1:2010

**Test Method III** : EN 14362-3:2017 (For textile)/ ISO 17234-2:2011 (For leather)

Quantification analysis by GC-MS and confirmation by LC-DAD.

**TESTED ITEM(S)** : **A** METALLIC GLD YELLOW XN PRINTED FABRIC  
**B** METALLIC FOILSTAR GOLD PRINTED FABRIC  
**C** METALLIC GLD CHANDI PRINTED FABRIC

<b>Maximum Limit:</b>	<b>30 mg/kg</b>				
Test Item(s)	Test Method	Result			Conclusion
		Detected Analyte(s)	Conc.	Unit	
<b>A+B+C</b>	<b>I</b>	ND	ND	<b>mg/kg</b>	<b>PASS</b>

Note: mg/kg = milligram per kilogram  
Detection Limit = 5 ppm

“<” = less than “>” = more than  
ND = not detected

**Remark:**

- 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.
- Azo colorants that are able to form p-aminoazobenzene, generate aniline and 1,4-phenylenediamine under the condition of this method. Aniline and 1,4-phenylenediamine are not detected under the condition of this method.
- The presence of these colorants cannot be confirmed by the method stated as above. The result of p-aminoazobenzene shown is analysed and confirmed by EN 14362-3/ ISO 17234-2.

### pH VALUE

**Test Method** : ISO 3071: 2005, extraction with potassium chloride (For Textile)

**Tested Item(s)** : **A** METALLIC GLD YELLOW XN PRINTED FABRIC  
**B** METALLIC FOILSTAR GOLD PRINTED FABRIC  
**C** METALLIC GLD CHANDI PRINTED FABRIC

<b>Maximum Limit:</b>	<b>Textile: 4.0-7.5</b>			
Tested Item(s)	Result	Unit	Conclusion	
<b>A</b>	5.7	-	<b>PASS</b>	
<b>B</b>	5.8	-	<b>PASS</b>	
<b>C</b>	5.8	-	<b>PASS</b>	

Note:

ND = Not detected

“>” = More than



**BUREAU  
VERITAS**

**APPENDIX**

<b>List of Amines in Azo Dyestuff:</b>					
<b>No.</b>	<b>Name of Analytes</b>	<b>CAS-No.</b>	<b>No.</b>	<b>Name of Analytes</b>	<b>CAS-No.</b>
1	4-Aminodiphenyl	92-67-1	13	4,4'-Methylenedi-o-toluidine (3,3'-Dimethyl-4,4'-diaminodiphenylmethane)	838-88-0
2	Benzidine	92-87-5	14	p-Cresidine	120-71-8
3	4-Chloro-o-toluidine	95-69-2	15	4,4'-Methylene-bis-(2-chloraniline)	101-14-4
4	2-Naphthylamine	91-59-8	16	4,4'-Oxydianiline	101-80-4
5	o-Aminoazotoluene	97-56-3	17	4,4'-Thiodianiline	139-65-1
6	5-nitro-o-toluidine (2-Amino-4-nitrotoluene)	99-55-8	18	o-Toluidine	95-53-4
7	4-Chloroaniline (p-Chloroaniline)	106-47-8	19	4-Methyl-m-phenylenediamine (2,4-Toluenediamine)	95-80-7
8	4-Methoxy-m-phenylenediamine (2,4-Diaminoanisole)	615-05-4	20	2,4,5-Trimethylaniline	137-17-7
9	4,4'-Diaminodiphenylmethane (4,4'-Methylenedianiline)	101-77-9	21	o-Anisidine	90-04-0
10	3,3'-Dichlorobenzidine	91-94-1	22	4-Aminoazobenzene (p-Aminoazobenzene)	60-09-3
11	3,3'-Dimethoxybenzidine (o-Dianisidine)	119-90-4	23	2,4-Xylidine	95-68-1
12	3,3'-Dimethylbenzidine (4,4'-Bi-o-tolidine)	119-93-7	24	2,6-Xylidine	87-62-7

**END**