

**TEST REPORT**

**REPORT NUMBER :** TURT190040846  
**APPLICANT NAME :** Besa Plastik Suni Deri A.Ş.  
**ADDRESS :** Hadımköy Mahallesi Deniz Kızı Sokak No:5 Arnavutköy İstanbul / TÜRKİYE  
TEL:0212 771 28 84 FAX:0212 771 32 90  
**Attention :** Uğur Ceylan ( [ugur\\_ceylan@besasunideri.com](mailto:ugur_ceylan@besasunideri.com) )  
**SAMPLE DESCRIPTION :** One sample of Flock Base Fabric Semi PU (PVC) Artificial Leather (White)  
**DATE IN :** 5 March ,2019 ( 10:31:00)  
**DATE OUT :** 21 March ,2019

TEST	SAMPLE
	1
Organo Tin Compounds	P
Determination of Alkylphenoethoxylates (APEO) for Textile	NR
Determination of Cadmium Content	P
Determination of Certain Aromatic Amines Derived from Azo Colorants	P
Determination of Free and Hydrolised Formaldehyde Test (Water extraction method)	NR
Determination of Polychlorophenols	P
Phthalate Content	P
Polycyclic Aromatic Hydrocarbons (PAHs) Analysis	P
Total Lead Content	NR

**P = MEETS BUYER' S REQUIREMENT / F = DOES NOT MEET BUYER' S REQUIREMENT / NR = NO REQUIREMENT / SC=STILL CONTINUES / X=NOT PERFORMED / NA = NOT APPLICABLE / LS = LACK OF SAMPLE / NC = NO COMMENT / I = INCONCLUSIVE / # = SEE RESULT / NF = NEEDS FURTHER TESTING / A = ABSENT / M = MARGINAL ACCEPT / SD = SEE DETAILS ENCLOSED / FS: FURTHER STEPS**

Testing reports without signature are not valid

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Merve AYDOGAN  
Customer Care Executive



Zeynep AKIN  
Chemical Laboratory Manager

**Intertek Test Hizmetleri A.S.**  
Merkez Mahallesi Sanayi Cad. No.23 Altindag Plaza Yenibosna-34197 /ISTANBUL  
Phone : +90 212 496 46 46 Fax: +90 212 452 80 55  
e-mail : [intertekcg.turkiye@intertek.com](mailto:intertekcg.turkiye@intertek.com)  
<http://www.intertek-turkey.com>



190040846

Test Method	Results	Requirements
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### Organo Tin Compounds

INTERTEK IHTM AL.2.030 refer to ISO 17353:2004 / BS EN ISO 17353:2005

	RESULTS (% w/w) of tin	REQUIREMENT (% w/w) of tin
Tri-substituted organotin*	Not Detected	0.1
Dibutyltin (DBT)	Not Detected	0.1
Diocetyl tin (DOT)	Not Detected	0.1

**Detection Limit: 0.005%**

Remark : The above limit was quoted according to Annex XVII Items 20 of the REACH Regulation (EC) no. 1907/2006 & amendment (EU) No. 276/2010 (formerly known as Decision 2009/425/EC) for organotin content.

\*The reported value was calculated by summation of the values of Tri-butyltin, Tri-phenyltin, Tri-methyltin Tri-octyltin, Tri-cyclohexyltin

**Estimated Total Uncertainty=( Textile:±7% ; Leather:±6%)**

### Determination of Alkylphenoethoxylates (APEO) for Textile

BS EN ISO 18254-1:2016

Determination of APEO by Liquid Chromatography-Mass Spectrometry (LC-MS-MS) Analysis

#### Alkylphenols

Nonylphenol (NP)	Not Detected	No Requirement
Octylphenol (OP)	Not Detected	

#### Alkylphenol Ethoxylates

Nonylphenoethoxylates (NPEO)	Not Detected	No Requirement
Octylphenoethoxylates (OPEO)	Not Detected	

ppm = mg/kg

Detection Limit = 1 ppm

ND = not detected

**Estimated Total Uncertainty=( ±10% )**

Test Method	Results	Requirements
<b>Determination of Cadmium Content</b> BS EN 1122 : 2001 (Method B) Determination by microwave digestion and ICP -OES	<5 ppm	100 ppm

ppm (part per million) =mg / kg    Detection Limit    =5 ppm    <    =Less Than  
%

**REMARK**    As per Cadmium Content Requirement in Annex XVII item 23 of the REACH Regulation (EC) No:1907/2006 (Formerly Known as Directive 91/338/EEC), Acid Digestion Method was used Total Cadmium Content was determined by ICP-OES

Estimated Total Uncertainty=( ±4%)

Test Method	Results	Requirements
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**Determination of Certain Aromatic Amines Derived from Azo Colorants**

EN ISO 14362-1:2017

By Gas Chromatographic - Mass Spectrometric (GC-MS) And High Performance Liquid Chromatographic (HPLC) Analysis.

- 1-White artificial leather (with extraction) <30 ppm  
2-White artificial leather (without extraction)

**RESULTS**

FORBIDDEN AMINE	CAS NO	RESULTS	
		1	2
4-AMINOBIHENYL	92-67-1	N	N
BENZIDINE	92-87-5	N	N
CHLORO-O-4-CHLOR-O-TOLUIDINE	95-69-2	N	N
2-NAPHTHYLAMINE	91-59-8	N	N
*O-AMINOAZOTOLUENE	97-56-3	N	N
*2-AMINO-4-NITROTOLUENE	99-55-8	N	N
P-CHLOROANILINE	106-47-8	N	N
2,4-DIAMINOANISOLE	615-05-4	N	N
4,4'-DIAMINOBIHENYLMETHANE	101-77-9	N	N
3,3'-DICHLOBENZIDINE	91-94-1	N	N
3,3'-DIMETHOXYBENZIDINE	119-90-4	N	N
3,3'-DIMETHYLBENZIDINE	119-93-7	N	N
3,3'-DIMETHYL-4,4' DIAMINOBIHENYLMETHANE	838-88-0	N	N
P-CRESIDINE	120-71-8	N	N
4,4'-METHYLENE-BIS-(2 CHLOROANILINE)	101-14-4	N	N
4,4'-OXYDIANILINE	101-80-4	N	N
4,4'-THIODIANILINE	139-65-1	N	N
O-TOLUIDINE	95-53-4	N	N
2,4-TOLUENEDIAMINE	95-80-7	N	N
2,4,5-TRIMETHYLANILINE	137-17-7	N	N
O-ANISIDINE	90-04-0	N	N
**P-AMINOAZOBENZENE	60-09-3	N	N
2,4 XYLIDINE	95-68-1	N	N
2,6 XYLIDINE	87-62-7	N	N

**Note:**

- 1)The amines o-amino-azotoluene and 2-amino-4-nitrotoluene are detected by its splitted product o-toluidine and 2,4- toluenediamine.  
2)Azo colorants that are able to form 4-aminoazobenzene, generate under the condition of this method aniline and 1,4- phenylendiamine . The presence of these colorants can not be reliably ascertained without additional information, e.g. chemical structure of the colorant used.  
3)According to ISO 14362-1:2017, separate test is suggested to ascertain the compliance for result of mixed test in the range between 5 ppm and 30 ppm.  
5)According to the official method ISO 14362-1:2017, if 4-Aminodiphenyl or 2-Naphthylamine or 2,4-Diaminoanisole is found exceeding requirement, the use of forbidden Azo colourants cannot be ascertained without additional information e.g. The chemical structure of the colourant used.  
ppm : part per million (mg/kg) Detection Limit: 5 ppm < = Less Than N: Not Detected NC : No Comment

**Estimated Total Uncertainty=( ±9%)**

Test Method	Results	Requirements
<b>Determination of Free and Hydrolised Formaldehyde Test (Water extraction method)</b>		
BS EN ISO 14184 - 1 :2011 Free and Hydrolized Formaldehyde by UV-VIS Analysis		
	Not Detected	No Requirement
ppm (part per million)	=mg / kg	
Detection Limit	=5 ppm	
<	=Less Than	
Estimated Total Uncertainty=( ±6%)		
Note :Sample was received unsealed		

### Determination of Polychlorophenols

DIN 53313 : 1996(2002) Supplemented by IHTM AL.2.094 method by Gas Chromatography-(GC-MS) & (GC-ECD) Analysis (withdrawn)

PCP (Pentachlorophenol)	Not Detected	0.5 ppm*
TeCP (Tetrachlorophenol)		0.5 ppm*
2,3,5,6 tetrachlorophenol	Not Detected	
2,3,4,6 Tetrachlorophenol	Not Detected	
2,3,4,5 Tetrachlorophenol	Not Detected	
Trichlorophenol (TrCP)		2.0 ppm
2,3,4 Trichlorophenol	Not Detected	
2,3,5 Trichlorophenol	Not Detected	
2,3,6 Trichlorophenol	Not Detected	
2,4,5 Trichlorophenol	Not Detected	
2,4,6 Trichlorophenol	Not Detected	
3,4,5 Trichlorophenol	Not Detected	
Orthophenylphenol (OPP)	Not Detected	100 ppm*
*: Eco testing standard for Textiles		

Estimated Total Uncertainty=( ±9%)

Test Method	Results	Requirements
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**Phthalate Content**

INTERTEK IHM AL.2.026 based on EN 14372 : 2004

Method By Gas Chromatography- Mass Spectrometry (GC- MS ) Analysis

	CAS NO	RESULT	REQUIREMENT
DIBUTYL PHTHALATE (DBP)	84-74-2	Not Detected	1000 ppm
DIETHYL HEXYL PHTHALATE (DEHP)	117-81-7	Not Detected	
BENZYL BUTYL PHTHALATE (BBP)	85-68-7	Not Detected	
DI-ISO-NONYL PHTHALATE (DINP)	28553-12-0	Not Detected	
DI-N-OCTYL PHTHALATE (DNOP)	117-84-0	Not Detected	
DI-ISO-DECYL PHTHALATE (DIDP)	26761-40-0	Not Detected	

**REMARK** =The Limit of 0.1% by weight was quoted according to Annex XVII Items 51&52 of the REACH Regulation (EC) No.1907/2006 (Formerly known as Directive 2005/84/EC) for Phthalate Content  
ppm (part per million) =mg / kg < =Less Than \* =EXCEEDED LIMIT ND = NOT DETECTED  
DETECTION LIMIT : DINP, DIDP : 100 ppm, Other Phthalates : 10 ppm

Estimated Total Uncertainty=( ±5%)

Test Method	Results	Requirements
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**Polycyclic Aromatic Hydrocarbons (PAHs) Analysis**

INTERTEK IHTM AL.2.032 based on AfPS GS 2014:01

	Result	Category 2 Requirement (ppm)
BENZO(A)PYRENE	Not Detected	<0.5
BENZO(E)PYRENE	Not Detected	<0.5
BENZ(A)ANTHRACENE	Not Detected	<0.5
BENZO( B )FLUORANTHENE	Not Detected	<0.5
BENZO(J)FLUORANTHENE	Not Detected	<0.5
BENZO(K)FLUORANTHENE	Not Detected	<0.5
CHRYSENE	Not Detected	<0.5
DIBENZO(A,H)ANTHRACENE	Not Detected	<0.5
BENZO(GHI)PERYLENE	Not Detected	<0.5
INDENO(1,2,3-CD)PYRENE	Not Detected	<0.5
ACENAPHTHYLENE	Not Detected	<10 sum
ACENAPHTHENE	Not Detected	
FLUORENE	Not Detected	
PHENANTHRENE	Not Detected	
PYRENE	Not Detected	
ANTHRACENE	Not Detected	
FLUORANTHENE	Not Detected	
NAPHTHALENE	0.4 ppm	
SUM (18 PAH mg/kg):	0.4 ppm	<10

ppm (part per million) =mg / kg  
Detection Limit = 0.1 ppm

Estimated Total Uncertainty=( ±3%)

Test Method	Results	Requirements
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**Total Lead Content**

With reference to USEPA 3050B / USEPA 3051 /USEPA 3051A/ US EPA 3052 ,by acid digestion and determined by ICP-OES

	RESULT	DETECTION LIMIT	REQUIREMENT
Lead (Pb)	Not Detected	5 ppm	No Requirement

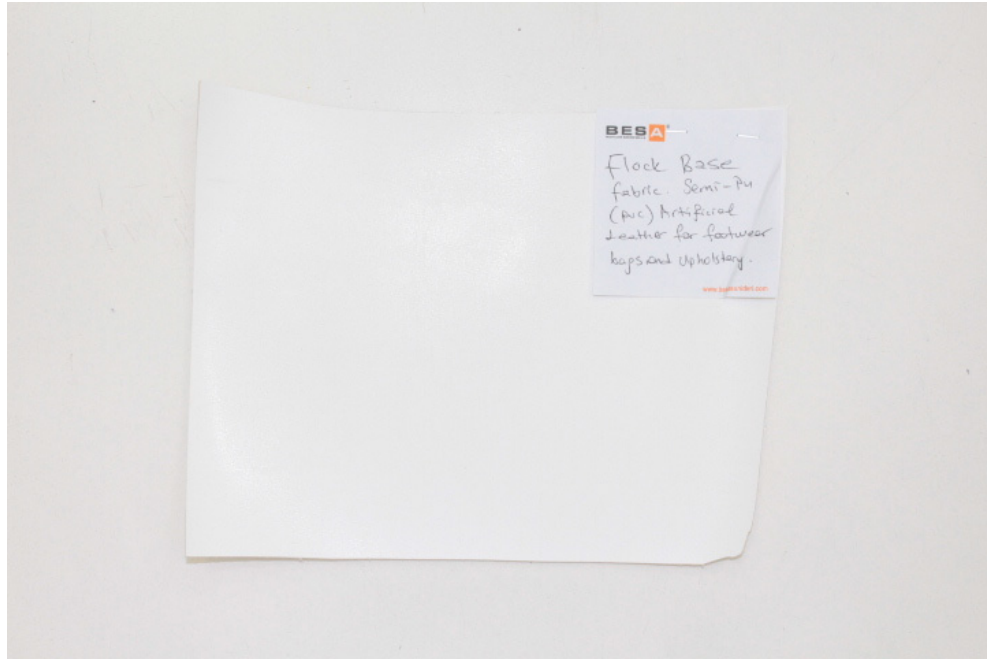
< = less than ppm: parts per million (mg/kg)

**Estimated Total Uncertainty=( ±8%)**



RESULTS  
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## END OF TEST REPORT ##