TÜRKAK
Test
TS EN ISO/IEC 17025
AB-0342-T

AB-0342-T
10111660065a
05/18

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Precisely Right.

TECE DEKOR KAĞIT BASKI EMPRENYE SAN. VE TİC. A.Ş.

BURSA ORG.SAN.BÖLGESİ 75.YIL BLV.NO:12 NİLÜFER / BURSA

Report No. 10111660065a

Buyer /

Test Item. : ABS Furniture Edge Band

Colour Name. : Brown

Article No. : /

Condition at delivery. : Samples tested as received

Test scope. : Parameters selected by customer.

Test specification. : Determination of phthalates
Determination of dimethylfumerate
Polycyclic aromatic hydrocarbons (PAHs)
EN 71-3 Migration of certain elements
Heavy Metal in Packaging
EN 15187 Grade 6 Colorfastness to Light

Remark. : Revise of test report 111660065 dated 11.05.2018, test item name has been corrected. Preceding test report is no longer valid.

Applicant's Provided Care Instruction/Label: -

Sample Receiving date: 2018-05-03

Testing Period: 2018-05-03 - 2018-05-11

Test Result: No Comment

For and on behalf of
TÜV Rheinland Uluslararası Standartlar Sertifikasyon ve Denetim A.Ş

Tomris Hasançebi / Customer Relations Manager

Duygu Ozturk / Chemical Laboratory Manager

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Material No.	Material	Color	Location
M001	Plastic	Brown	ABS Furniture Edge Band

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Conclusion:

TEST PROPERTY	**M001**
Dimethyl fumarate (CAS No.624-49-7)	#
CPSIA Sect 108: Phthalates	#
Total Cadmium Content	#
Polycyclic aromatic hydrocarbons (PAHs)	#
EN71-3:2013+A2:2017 Migration of 19 Elements - with reference to 2009/48/EC and its amendments	#
Packaging Waste Heavy Metal Test - 94/62/EC	#
Colorfastness to Light, EN 15187	#

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1.Dimethyl fumarate (CAS No.624-49-7)

Test Method: Organic solvent extraction, GCMS analysis

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T001	M001	Dimethyl fumarate	mg/kg	0.1	-	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram

Remark:

* According to REACH Regulation (EC) No. 1907/2006 Annex XVII Item 61 and amendment Commission Regulation (EU) No. 412/2012 (formerly known as 2012/48/EU), dimethylfumarate (DMF) shall not be used in articles or any parts thereof in concentrations greater than 0.1 mg/kg. Articles or any parts thereof containing DMF in concentrations greater than 0.1 mg/kg shall not be placed on the market.

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2.CPSIA Sect 108: Phthalates

CPSIA Sect. 108	Phthalates	Please refer to page XX

Test Method: CPSC-CH-C1001-09.3

Result:

				Test No.	T001
				Material No.	M001
Test Parameter	CAS NO	Unit	RL	Regulatory Requirement	Result
Dibutyl phthalate (DBP)	84-74-2	%	0.01	-	n.d.
Benzylbutyl phthalate (BBP)	85-68-7	%	0.01	-	n.d.
Diethylhexyl phthalate (DEHP)	117-81-7	%	0.01	-	n.d.
Di-n-octyl phthalate (DNOP)	117-84-0	%	0.01	-	n.d.
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1	%	0.01	-	n.d.
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0	%	0.01	-	n.d.

Abbreviation: Abbreviation n.d. = Not Detected (< RL)
RL = Reporting Limit
% denotes percentage

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3.Total Cadmium Content

Test Method: For plastic: EN 1122:2001 (method B)
For metal and other material: Acid digestion, analyzed by AAS/ ICP-OES

Test Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Test Result
T001	M001	Trial 1	mg/kg	10	-	n.d.
		Trial 2	mg/kg	10	-	n.d.
		Average	mg/kg	10	-	n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram

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4. Polycyclic aromatic hydrocarbons (PAHs)

Test Method: AfPS GS 2014:01 PAK

Test Result:

			Test No.	T001
			Material No.	M001
Test Parameter	CAS NO	Unit	RL	Result
Acenaphthene	83-32-9	mg/kg	0.1	n.d.
Acenaphthylene	208-96-8	mg/kg	0.1	n.d.
Anthracene	120-12-7	mg/kg	0.1	n.d.
Benzo[a]anthracene	56-55-3	mg/kg	0.1	n.d.
Benzo[a]pyrene(BaP)	50-32-8	mg/kg	0.1	n.d.
Benzo[b]fluoranthene	205-99-2	mg/kg	0.1	n.d.
Benzo[k]fluoranthene	207-08-9	mg/kg	0.1	n.d.
Benzo[j]fluoranthene	205-82-3	mg/kg	0.1	n.d.
Benzo[g,h,i]perylene	191-24-2	mg/kg	0.1	n.d.
Benzo[e]pyrene	192-97-2	mg/kg	0.1	n.d.
Chrysene	218-01-9	mg/kg	0.1	n.d.
Dibenzo[a,h]anthracene	53-70-3	mg/kg	0.1	n.d.
Fluoranthene	206-44-0	mg/kg	0.1	n.d.
Fluorene	86-73-7	mg/kg	0.1	n.d.
Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.1	n.d.
Naphthalene	91-20-3	mg/kg	0.1	n.d.
Phenanthrene	85-01-8	mg/kg	0.1	n.d.
Pyrene	129-00-0	mg/kg	0.1	n.d.
Sum of Acenaphthylene, Acenaphthene, Anthracene, Fluoranthene, Fluorene, Phenanthrene, Pyrene	-	mg/kg	0.1	n.d.
Sum of 18 PAHs	-	mg/kg	-	n.d.
Category*	-	-	-	

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
NA = Not Applicable
mg/kg = milligram per kilogram

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* PAH maximum permissible limits requirement from the GS-Mark Approval published by the German Federal Institute for Occupational Safety and Health (BAuA)

Parameter	Unit	Category 1	Category 2		Category 3	
		Materials intended to be put into the mouth or materials of toy for children with long term intended skin contact (longer than 30 s)	Materials not covered by category 1, with foreseeable long term skin contact (longer than 30 s) or repeated short-term skin contact		Materials not covered by category 1 or 2, with foreseeable short term contact (shorter than 30s)	
		-	Toys according to directive 2009/48/EC	Other products according to ProdSG	Toys according to directive 2009/48/EC	Other products according to ProdSG
Benzo[a]pyrene(BaP)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[e]pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[a]anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[b]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[j]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[k]fluoranthene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo[a,h]anthracene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Benzo[g,h,i]perylene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Indeno[1,2,3-cd]pyrene	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
Naphthalene	mg/kg	<1	<2	<2	<10	<10
Sum of Acenaphthylene Acenaphthene Anthracene Fluoranthene Fluorene Phenanthrene Pyrene	mg/kg	<1	<5	<10	<20	<50
Sum of 18 PAHs	mg/kg	<1	<5	<10	<20	<50

Limit: Specific evaluation required according to type of foreseeable use.

** Single components with an amount of <0.2 mg/kg were not considered by the calculation of the sum. In the case of all 18 PAHs were not detected, the result is stated n.d.

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5. EN71-3:2013+A2:2017 Migration of 19 Elements - with reference to 2009/48/EC and its amendments

Test Method: with reference to EN71-3:2013+A2:2017, for inorganic elements, analyzed by ICP-OES or ICP-MS.

3) For scraped-off toy materials:

			Test No.	T001
			Material No.	M001
Parameter	Unit	RL	Regulatory Requirement	Result
Aluminium (Al)	mg/kg	500	70,000	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.
Arsenic (As)	mg/kg	0.5	47	n.d.
Barium (Ba)	mg/kg	200	18,750	n.d.
Boron (B)	mg/kg	200	15,000	n.d.
Cadmium (Cd)	mg/kg	0.2	17	n.d.
Chromium (Cr)	mg/kg	0.005	-	n.d.
Chromium III (CrIII)§	mg/kg	1	460	n.d.
Chromium VI (CrVI)§	mg/kg	0.1	0.2	n.d.
Cobalt (Co)	mg/kg	1.5	130	n.d.
Copper (Cu)	mg/kg	50	7,700	n.d.
Lead (Pb) ¢	mg/kg	2	160	n.d.
Manganese (Mn)	mg/kg	200	15,000	n.d.
Mercury (Hg)	mg/kg	0.5	94	n.d.
Nickel (Ni)	mg/kg	10	930	n.d.
Selenium (Se)	mg/kg	5	460	n.d.
Strontium (Sr)	mg/kg	500	56,000	n.d.
Tin (Sn)	mg/kg	5	180,000	n.d.
Organic Tin^	mg/kg	0.2	12	n.d.
Zinc (Zn)	mg/kg	500	46,000	n.d.

Abbreviation:

n.d. = Not Detected (< RL)

RL = Reporting Limit

mg/kg denotes milligram per kilogram

§ denotes Cr(III) and Cr(VI) are not necessary to be determined when the Combined Chromium concentration value is less than the requirement

^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.9 mg/kg) or the components were confirmed to be pure metal

Remark:

¢ According to Council Directive (EU) 2017/738, the amendment of Directive 2009/48/EC, migration limits for lead in i) dry, brittle, powder-like or pliable toy materials; ii) liquid or sticky toy materials; and iii) scraped-off toy materials will be revised to 2.0 mg/kg, 0.5 mg/kg and 23 mg/kg, respectively. Effective from 28 October 2018.

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6.Packaging Waste Heavy Metal Test - 94/62/EC

Test Method: Acid digestion, analyzed by ICP-OES
For Cr (VI) - EN 62321:2009

Result:

Test No.	Material No.	Test Parameter	Unit	RL	Regulatory Requirement	Result
T001	M001	Pb	mg/kg	10	-	38.4
		Cd	mg/kg	10		n.d.
		Cr^	mg/kg	10		14.7
		Cr (VI)	mg/kg	10		-
		Hg	mg/kg	10		n.d.

Abbreviation: n.d. = not detected (< Reporting Limit)
RL = Reporting Limit
mg/kg = milligram per kilogram
Pass = the sum of 4 elements is less than or equal to 100 mg/kg.
Fail = the sum of 4 elements is over 100 mg/kg.
Uncertain = the sum of 4 elements fell into the uncertainty range.
N.A = Not Applicable

Remark:

*1 According to "European Parliament and Council Directive 94/62/EC of 20 December 1994"; the maximum permissible limit of the sum of the concentration of Lead, Cadmium, Mercury and Hexavalent Chromium is 100ppm.

^ Screening of total chromium is performed. If the result is in the inconclusive region, chromium VI content of plastics will be confirmed by EN 62321:2009, whilst that of metal will be confirmed by spot test.
A positive result of spot test means the presence of Cr(VI) in the material. A negative result means the absence of Cr(VI) in the material.

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7.Colorfastness to Light, EN 15187

Test method : EN 15187, Colorfastness to artificial light- Xenon Arc Fading Lamp test

	M001	Requirement	Conclusion
Grade	6+	-	No Comment

- END -

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