

TEST REPORT

NB 1417



ÉMI-TÜV

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Name of Applicant **EURO-MATIC Műanyagfeldolgozó Kft.**
address H-1224 Budapest, Máriás utca 30.

Date of application: 11/09/2019

Name of test samples: Balls 60 mm, 75 mm, 80 mm

Producer of tested samples: EURO-MATIC Műanyagfeldolgozó Kft.

Subject of application: Test of toys according to
MSZ EN 71-1:2014+A1:2018,
MSZ EN 71-2:2011+A1:2014,
MSZ EN 71-3:2013+A3:2018,
MSZ EN 71-9:2005+A1:2008 (2D, 2E, 2I),
Lead, Cadmium, phthalates and PAH determination

Receipt date of test samples: 11/09/2019

Testing period: 11/09/2019 – 07/10/2019

ÉMI-TÜV SÜD Kft.
Central Laboratory
KERMI Department
Budapest, 07/10/2019
File No.: R-1379659
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Attention: The test results apply only to the tested samples. The test report may only be copied in its total volume, for making extracts the written approval of the issuer should be obtained.

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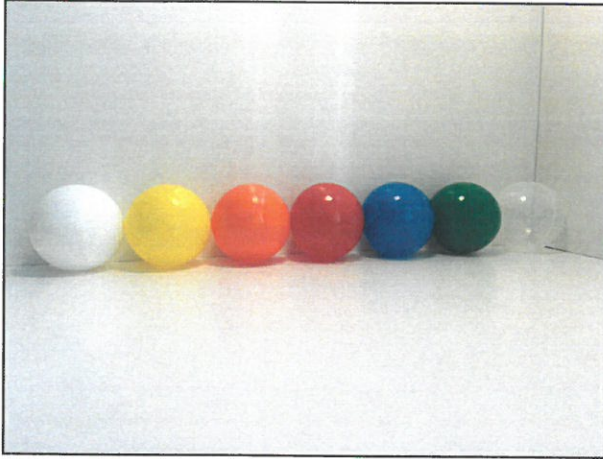
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Name of test samples:



Balls 60 mm, 75 mm, 80 mm



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Test results:

**Tests required by Directive, 2009/48/EC
(harmonized Hungarian legislation: regulation 38/2011 (X.5.) NGM)**

I. General requirements

Requirement		Result
General requirements	Risks related to the shape, construction, composition, use and function shall be minimized	No risk.



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II. PARTICULAR SAFETY REQUIREMENTS

II/1.

MSZ EN 71-1:2014+A1:2018 Toy safety

Part 1.: Physical and mechanical properties

Requirements				Results
4. General requirements				
4.1.	Material cleanliness	The materials have to be clear and free of insect impurities.		Materials are visually clean.
4.7.	Édges	8.11.	Sharpness of edges	No burr, no sharp edges.
4.8.	Points and metallic wires	8.12.	Sharpness of points	No hazardous sharp points.
6.	Packaging			Not packaged
7.	Warnings and instruction for use	7.1.	General requirements	Warning labels according to requirements of Directive No. 2009/48/EC



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II/2.

MSZ EN 71-2:2011+A1:2014 Safety of toys 2. Part: Flammability

Requirement			Result
4.	Requirement		
4.1.	General requirements	It must not contain materials with the same behaviour in fire as celluloid	No contain material with the same behaviour in fire as celluloid



II. PARTICULAR SAFETY REQUIREMENTS

II./3. Chemical properties

II./3.b. MSZ EN 71-3:2013+A3:2018 Safety of toys Part 3. Migration of certain elements

Tested parameter	Result [mg/kg] ± 10 rel. %		LOQ [mg/kg]	Limits [mg/kg]
	balls mix 1	balls mix 2		III. category
Aluminium (Al)	<0.25	<0.25	0.25	70000
Antimony (Sb)	<0.025	<0.025	0.025	560
Arsenic (As)	<0.05	<0.05	0.05	47
Barium (Ba)	<0.15	<0.15	0.15	18750
Boron (B)	<0.25	<0.25	0.25	15000
Cadmium (Cd)	<0.025	<0.025	0.025	17
Chromium (III) (Cr)	<0.025	<0.025	0.025	460
Chromium (VI) (Cr)	<0.025	<0.025	0.025	0.2
Cobalt (Co)	<0.025	<0.025	0.025	130
Copper (Cu)	<0.025	<0.025	0.025	7700
Lead (Pb)	<0.025	<0.025	0.025	23
Manganese (Mn)	<0.025	<0.025	0.025	15000
Mercury (Hg)	<0.025	<0.025	0.025	94
Nickel (Ni)	<0.05	<0.05	0.05	930
Selenium (Se)	<0.05	<0.05	0.05	460
Strontium (Sr)	<0.05	<0.05	0.05	56000
Tin (Sn)	<0.05	<0.05	0.05	180000
Organic tin	<0.05	<0.05	0.05	12
Zinc (Zn)	<0.25	<0.25	0.25	46000

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KERMI Department**MSZ EN 71-9:2005+A1:2008 Safety of toys
Part 9: Organic chemical compounds****2 D Monomers (migration):**

Test results according to Test report No. R-545762 of ÉMI-TÜV SÜD Kft. KERMI Department.

Tested parameter Monomers (CAS No.):	Result [mg/l] ± 10 rel. %	Limits [mg/l]
	balls mix	
Acrylamide (79-06-1)	ND*	0.02
Bisphenol A (80-05-7)	ND	0.04
Formaldehyde (50-00-0)	ND	2.5
Phenol (108-95-2)	ND	5
Styrene (100-42-5)	ND	0.75

*ND: not detected

LOQ for acrylamide: 0.01 mg/l

LOQ for bisphenol A: 0.005 mg/l

LOQ for phenol: 1 mg/l

LOQ for styrene: 0.5 mg/l



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MSZ EN 71-9:2005+A1:2008 Safety of toys
Part 9: Organic chemical compounds

2 E Solvents (migration):

Test results according to Test report No. R-545762 of ÉMI-TÜV SÜD Kft. KERMI Department.

Tested Parameter Migration of solvents (CAS No.):	Result [mg/l] ± 10 rel.%	Limits [mg/l]
	balls mix	
Trichloroethylene (79-01-6)	ND*	0.02
Dichloromethane (75-09-2)	ND	0.06
2-Methoxyethyl acetate (110-49-6)	ND	0.5
2-Ethoxyethanol (110-80-5)	ND	
2-Ethoxyethyl acetate (111-15-9)	ND	
Bis(2-methoxyethyl) ether (111-96-6)	ND	
2-Methoxypropyl acetate (70657-70-4)	ND	
Methanol (67-56-1)	ND	5
Nitrobenzene (98-95-3)	ND	0.02
Cyclohexanone (108-88-3)	ND	46
3.5.5-Trimethyl-2-cyclohexene-1- one (78-59-1)	ND	3
Toluene (108-88-3)	ND	2
Ethylbenzene (100-41-4)	ND	1
Xylene (all isomers) (various No.)	ND	2(total)

*ND: not detected

LOQ for component: 0.5 mg /l

LOQ for Dichloromethane: 0.05 mg/l

LOQ for Trichlorethylene. Nitrobenzene: 0.01 mg/l



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MSZ EN 71-9:2005+A1:2008 Safety of toys
Part 9: Organic chemical compounds

2 I Determination of Plasticisers (migration)

Test results according to Test report No. R-545762 of ÉMI-TÜV SÜD Kft. KERMI Department.

Tested Parameter (CAS No.)	Result [mg/l] ± 10 rel.%	Limits [mg/l]
	balls mix	
Triphenyl phosphate	ND*	0.03
Tri-o-cresyl phosphate	ND	0.03
Tri-m-cresyl phosphate	ND	0.03
Tri-p-cresyl phosphate	ND	0.03

*ND: not detected
LOQ: 0.02 mg/l

The toy should not contain dangerous substances according to 1907/2006/EC (REACH) and amendments:

Test method: MSZ EN 17294-2:2005. determination: ICP-MS

Test results according to Test report No. R-545762 of ÉMI-TÜV SÜD Kft. KERMI Department.

Tested Parameter	Result		Limits
	PP granulate	PE granulate	
Total cadmium content [mg/kg]	<0.1	<0.1	100 mg/kg
Total lead content [w/w%]	<0.00001	<0.00001	0.05 w/w%

LOQ: 0.1 mg/kg; 0.00001 w/w%



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II./3.c.

The toy should not contain dangerous substances according to 1907/2006/EC (REACH) and amendments: Phthalates

Test methods: CPSC-CH-C1001-09.3

Test results according to Test report No. R-545762 of ÉMI-TÜV SÜD Kft. KERMI Department.

No.	Tested Parameter	CAS No.	Result	Detection limit [w/w%]	Limit [w/w%]
			[w/w%] ± 10 rel.% balls mix		
01	Di-methyl phthalate	131-11-3	ND*	0.005	---
02	Di-ethyl phthalate	84-66-2	ND	0.005	---
03	Di-propyl phthalate (DPrP)	131-16-8	ND	0.005	---
04	Di-butyl phthalate (DBP)	84-74-2	ND	0.005	0.1
05	Di-iso-butyl phthalate (DiBP)	84-69-5	ND	0.005	0.1
06	Benzyl butyl phthalate (BBP)	85-68-7	ND	0.005	0.1
07	Di-pentyl phthalate (DPP)	131-18-0	ND	0.005	0.1
08	Di-iso-pentyl phthalate (DiIPP)	605-50-5	ND	0.005	---
09	N-pentyl-isopentyl phthalate (nPiPP)	776297-69-9 84777-06-0	ND	0.005	---
10	Di-hexyl phthalate (DHP) (DnHP)	84-75-3	ND	0.005	0.1
11	Di-n-octyl phthalate (DnOP)	117-84-0	ND	0.005	0.1
12	Di-iso-octyl phthalate (DiOP)	27554-26-3	ND	0.05	---
13	Di-nonyl phthalate (DNP)	84-76-4	ND	0.05	---
14	Di-iso-nonyl phthalate (DiNP)	68515-48-0	ND	0.05	0.1
15	Di-decyl phthalate (DDP)	84-77-5	ND	0.005	---
16	Di-iso-decyl phthalate (DiDP)	26761-40-0	ND	0.05	0.1
17	Di-un-decyl phthalate (DUP)	3648-20-2	ND	0.005	---
18	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	0.005	0.1
19	Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	ND	0.005	---
20	Di-allyl phthalate (DAP)	131-17-9	ND	0.005	---
21	Di-phenyl phthalate (DPhP)	84-62-8	ND	0.005	---
22	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C-7 Rich (DiHP)	71888-89-6	ND	0.05	---

*ND: not detected



Polycyclic aromatic hydrocarbons (PAH)

Test samples:

1. sample: ball, white
2. sample: ball, yellow
3. sample: ball, orange
4. sample: ball, red
5. sample: ball, blue
6. sample: ball, green
7. sample: ball, natural

Test methods: AfPS GS 2014:01 PAK

PAH	CAS No.	Results [mg/kg] ± 10 rel.%						
		1.	2.	3.	4.	5.	6.	7.
Benzo [a] pyrene	50-32-8	ND	ND	ND	ND	ND	ND	ND
Benzo[e]pyrene	192-97-2	ND	ND	ND	ND	ND	ND	ND
Benzo[j]fluoranthene	205-82-3	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	56-55-3	ND	ND	ND	ND	ND	ND	ND
Benzo [b] fluoranthene	205-99-2	ND	ND	ND	ND	ND	ND	ND
Benzo [k]fluoranthene	207-08-9	ND	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	ND	ND	ND	ND	ND	ND	ND
Dibenzo [a,h] anthracene	53-70-3	ND	ND	ND	ND	ND	ND	ND
Benzo [g,h,i]perylene	191-24-2	ND	ND	ND	ND	ND	ND	ND
Indeno [1,2,3-cd] pyrene	193-39-5	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	208-96-8	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	83-32-9							
Fluorene	86-73-7							
Phenantrene	85-01-8							
Pyrene	129-00-0							
Anthracene	120-12-7							
Fluoranthene	206-44-0							
Naphthalane	91-20-3	ND	ND	ND	ND	ND	ND	ND
Sum PAH		ND	ND	ND	ND	ND	ND	ND

*ND: not detected; detection limit: 0.2 mg/kg per component

Requirements: 1272/2013/EU: max. 0.5 mg/kg



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II./5. Hygiene

Tested parameter	Requirement	Result
Hygiene	Toys must be so designed and manufactured as to meet the requirements of hygiene and cleanliness in order to avoid any risk of infection, sickness, and contamination	Clean by wet wipe.

II./6. Radioactivity

Tested parameter	Requirement	Result
Radioactivity	Toys must not contain radioactive elements or substances in forms or proportions like to be detrimental to a child's health. According to KERMI-014	The samples did not exceed background radiation.

The samples were used for tests.



ÉMI-TÜV SUD Kft.
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