

TEST REPORT



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Name of the client: Roland DG EMEA
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ÉMI-TÜV SÜD Kft.
Central Laboratory
KERMI Department
Budapest, 10/08/2022
test report No.: R-1978901
1 / 3 pages

Date of application: 02/08/2022

Receipt date of samples: 02/08/2022

Subject of order: Testing of printing inks according to EN 71-3:2019+A1:2021
Safety of toys. Part 3: Migration of certain elements.

Samples description: 2 printing ink cartridges
ECO-UV, EUV5-5RE and ECO-UV, EUV5-5OR

Sample number	Ink type	EAN code
1.	EUV5-5RE, RED, INK, 500 ml	4 982978 706459
2.	EUV5-5OR, ORANGE, INK, 500 ml	4 982978 706442

Manufacturer: Roland DG Corporation

Testing period: 03/08/2022– 10/08/2022

Conclusion: Test pass

Remark: The result relates only to the items tested
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Sample photo:





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Test results:

Migration of certain elements

According to EN 71-3:2019+A1:2021 Safety of toys, determined by ICP-MS

Tested parameter	Result [mg/kg]		LOQ mg/kg	Limits [mg/kg]
	sample 1. EUV5-5RE Red	sample 2. EUV5-5OR Orange		II. category
Aluminium (Al)	14,8	22,9	0,25	560
Antimony (Sb)	<0,025	<0.025	0,025	11,3
Arsenic (As)	<0,05	<0.05	0,05	0,9
Barium (Ba)	<0,15	<0.15	0,15	375
Boron (B)	1,1	0,5	0,25	300
Cadmium (Cd)	<0,025	<0.025	0,025	0,3
Chromium (III) (Cr)	<0,01	0,040	0,01	9,4
Chromium (VI) (Cr)	<0,005	<0,01	0,005	0,005
Cobalt (Co)	<0,025	<0,025	0,025	2,6
Copper (Cu)	<0,025	0,2	0,025	156
Lead (Pb)	<0,025	<0,025	0,025	0,5
Manganese (Mn)	<0,025	<0,025	0,025	300
Mercury (Hg)	<0,025	<0,025	0,025	1,9
Nickel (Ni)	<0,05	<0,05	0,05	18,8
Selenium (Se)	<0,05	<0,05	0,05	9,4
Strontium (Sr)	<0,05	<0,05	0,05	1125
Tin (Sn)	<0,05	<0,05	0,05	3750
Organic tin	<0,05	<0,05	0,05	0,2
Zinc (Zn)	0,5	<0,25	0,25	938

The samples were used for tests.

Reviewed by:

Orsolya Molnár

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