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Dr. Schutz GmbH
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Dresden, 05/05/2023
JZIN


Test Report Order no. 2523154

Client: Dr. Schutz GmbH
Steinbrinksweg 30
31840 Hessisch Oldendorf

Order: Determination of the migration behaviour of elements according to
DIN EN 71-3: 2021-06 in a 2-component polyurethane sealant

Contractor: Entwicklungs- und Prueflabor Holztechnologie GmbH
Laboratory unit Chemical Testing
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Engineer in charge: Julia Zink



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The test report contains 3 pages. Any duplication of extracts requires the written permission of EPH. The test results refer exclusively to the material tested.

1 Task

Determination of the migration behaviour of elements according to DIN EN 71-3: 2021-06 in a 2-component polyurethane sealant

NOTE: All numerical values within this document are given with a comma as decimal.

2 Evaluation

Table 1: Evaluation overview

Basis for evaluation	Category	Result
DIN EN 71-3: 2021- 06	Category III: Scraped materials	✓

✓ Requirements are fulfilled, ✗ Requirements are not fulfilled

Statements on conformity assessment/classification were made on the basis of the measurement results obtained. Measurement uncertainties are not included in the assessment (ILAC G8 03/2009 " Guidelines on the Reporting of Compliance with Specification" Section 2.7).

3 Sample material

Table 2: Sample overview

Sample	Sample name	description	Amount	Sample receipt
P1	Eukula free 442 Lack + Crosslinker	Innovative water-based 2-component polyurethane sealer based on carbodiimide crosslinking, floor sealant	5 L	13/03/2023

4 Test performance

The following methods were used:

DIN EN 71-3: 2021-6, Safety of toys - Part 3: Migration of certain elements

Table 3: Overview of the tests performed

Pos.	tests performed	Test duration
1	Determination of migration behaviour according to DIN EN 71-3: 2021-06	25/04/2023

The following elements had to be determined according to DIN EN 71-3 (2021-06):

Aluminium (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Boron (B), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Mercury (Hg), Manganese (Mn), Nickel (Ni), Lead (Pb), Selenium (Se), Tin (Sn), Strontium (Sr), Zinc (Zn)

5 Results

Table 4: Result overview

Elements	Limit Category III	Limit of quantification	Measured values	Limit value complied with: Category III
	[mg/kg]	[mg/kg]	[mg/kg]	
Sample			P1	
Al	28130	3	< LOQ	✓
As	47	1,5	< LOQ	✓
B	15000	3	6	✓
Ba	18750	0,1	2	✓
Cd	17	0,05	< LOQ	✓
Co	130	0,05	< LOQ	✓
Chrom, total		0,01	< LOQ	
Chrom (III) ¹	460		< LOQ	✓
Chrom(VI) ²	0,053		n.d.	✓
Cu	7700	0,1	< LOQ	✓
Hg	94	0,05	1	✓
Mn	15000	0,05	< LOQ	✓
Ni	930	0,25	< LOQ	✓
Pb	23	1,5	< LOQ	✓
Sb	560	1,5	< LOQ	✓
Se	460	1,5	< LOQ	✓
Sn	180000	0,05	< LOQ	✓
Organotin ³	12		n.d.	✓
Sr	56000	0,05	< LOQ	✓
Zn	46000	1,5	< LOQ	✓

n.d. not determined

LOQ Limit of quantification

¹ The chromium (III) content corresponds to the total chromium content minus the chromium (VI) content.

² The determination of chromium (VI) was only carried out for samples in which the total chromium content exceeded the limit value for chromium (VI).

³ The determination of the organotin content is only carried out for samples where the tin content exceeds the limit value for organotin compounds.


 Julia Zink
 Engineer in charge