

Vescom bv
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Your notice of
08-08-2017

Your reference

Date
04-09-2017

Analysis Report 17.04608.01

Required tests :

EN 12149 - test C (1997)

Determination of formaldehyde in textile wall covering (IGI method)

EN 12149 - test B (1997)

Determination of vinylchloride in textile wall covering (GC-MS)

EN 12149 - test A (1997)

Determination of heavy metals in wallpaper according to IGI

Identification number	Information given by the client	Date of receipt
T1717261	Tonga 101501	08-08-2017

Kristina De Temmerman

Order responsible

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The results of the analysis cover the received samples. Centexbel is not responsible for the representativeness of the samples.
In assessing compliance with the specifications, we did not take into account the uncertainty on the test results.

Reference: **T1717261 - Tonga 101501**

Determination of formaldehyde in textile wall covering (IGI method)

Date of ending the test 01-09-2017
Standard used EN 12149 - test C (1997)
Product standard EN 233 (1999)

Deviation from the standard -
Principle Absorption of the released formaldehyde in water of textile wall covering.
Conditions: 2 * 24 hours at 40°C in a closed bottle. Measurements take place on the 2nd 24 hours absorption liquid.
Reaction with acetyl acetone
Determination Spectrophotometric at 412 nm

Results
Maximum allowable concentration of formaldehyde I.G.I.: 12 mg/100g

mg/100g
< 1.0

Reference: **T1717261 - Tonga 101501**

Determination of vinylchloride in textile wall covering (GC-MS)

Date of ending the test 04-09-2017
Standard used EN 12149 - test B (1997)
Product standard EN 233 (1999)
Deviation from the standard -
Extraction method Dimethylacetamide is added to the sample in a closed bottle.
The closed bottle is heated during 2 hours at 60°C. Air from
the headspace is injected directly on GC.
Analysis method Gas chromatography, external standard
Results
Detection limit 0.2 mg/kg

Result (mg/kg)	< 0.20
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Reference: **T1717261 - Tonga 101501**

Determination of heavy metals in wallpaper according to IGI

Date of ending the test 30-08-2017
Standard used EN 12149 - test A (1997)
Product standard EN 233 (1999)
Deviation from the standard -
Extraction method With a solution of 0.07 mol/L HCl
Determination ICP iCAP 6500
Analytical correction according to EN 233 (wallpaper cylindrical-specifications)

Results

Metals	Detection limit (DL) mg/kg	Concentration mg/kg	Corrected concentration (mg/kg)	Maximum migration * mg/kg
Sb (antimony)	0.6	< 0.60	< 0.60	20
As (arsenic)	0.5	< 0.50	< 0.50	3
Ba (barium)	0.1	7.97	5.58	500
Cd (cadmium)	0.1	< 0.10	< 0.10	3
Cr (chromium)	0.2	< 0.20	< 0.20	20
Pb (lead)	0.05	< 0.05	< 0.05	20
Hg (mercury)	0.1	< 0.10	< 0.10	20
Se (selenium)	1	< 1.00	< 1.00	10

* Limiting maximum migration according to I.G.I.