

EMISSION TEST RESULTS

KNAUF PLASTERBOARDS

Testing Laboratory:	I.B.R. - Institut für Baubiologie Rosenheim GmbH Münchener Straße 18 83022 Rosenheim Germany Sampling & Chemical analysis laboratories are certified ISO/IEC 17025:2018
Test report Number:	No. 31/24/5408/01
Testing date:	Mai 2024
Testing methods:	DIN EN ISO 16000-9 and DIN EN 16516

A-List of plasterboards covered by these results:

Knauf DIAMOND BOARD ONE 12.5mm model-based	
Tests achieved in accordance with the principle of "worst-case scenario". Full compliance may be claimed for following boards manufactured in Belgium/Wielsbeke.	
Standard Board A 10 - 13 - 15 mm	Horizon Board A 10 - 13 mm
Flexboard 6.5 mm / Stuc Board 10 mm	Horizon Board H2 13 mm
Fire Resistant Board 13 - 15 mm	Horizon Board DF 13 - 15 - 18 mm
Water Resistant Board 13 - 15 mm / Greenboard 10	Diamond Board 13 - 15 mm
Soundshield 13 mm	Diamond Board One 13 mm
DIY board 13 mm	Isolava light 10 mm

B-Results for French VOC-Regulation:

Following French mandatory labelling system – VOC-emission classes (acc. to Decree n°2011-321 of March 23, 2011, and order of April 19, 2011)

Compound / Parameter	CAS N°	Emission limits (µg/m³)				Diamond Board One	
		C	B	A	A+	Emissions	Results
Formaldehyde	50-00-0	> 120	< 120	< 60	< 10	< 10	A+
Acetaldehyde	75-07-0	> 400	< 400	< 300	< 200	< 200	A+
Toluene	108-88-3	> 600	< 600	< 450	< 300	< 300	A+
Tetrachloroethylene	127-18-4	> 500	< 500	< 350	< 250	< 250	A+
Xylene	1330-20-7	> 400	< 400	< 300	< 200	< 200	A+
1,2,4-Trichlorobenzene	95-63-6	> 2000	< 2000	< 1500	< 1000	< 1000	A+
1,4-Dichlorobenzene	106-46-7	> 120	< 120	< 90	< 60	< 60	A+
Ethylbenzene	100-41-4	> 1500	< 1500	< 1000	< 750	< 750	A+
2-Butoxyethanol	111-76-2	> 2000	< 2000	< 1500	< 1000	< 1000	A+
Styrene	100-42-5	> 500	< 500	< 350	< 250	< 250	A+
TVOC _{TE}	/	> 2000	< 2000	< 1500	< 1000	< 1000	A+

C-Results for BREEAM limits:

Following BREEAM International New Construction 2016; Technical Manual SD233 03/07/2017
Emission levels after 28 days

Compound / Parameter	Emission limits (mg/m ³)		Diamond Board One	
	General	Exemplary	Emissions	Results
Formaldehyde	≤ 0,06	≤ 0,01	≤ 0,01	Pass Exemplary
Total volatile organic compounds (C6 – C16) = TVOC	≤ 1,0	≤ 0,3	≤ 0,3	Pass Exemplary
Total semi-volatile organic compounds (C17-C22) = TSVOC	-	≤ 0,1	≤ 0,1	Pass Exemplary
Carcinogenic 1A and 1B	≤ 0,001	≤ 0,001	≤ 0,001	Pass Exemplary

D-Results for German VOC-Regulation AgBB:

Following 3 guidelines:

1. DIBt-guideline for health assessment of construction products used in interiors.
2. AgBB-scheme of emission of VOC from construction products; Stand June 2021
3. LCI (NIK) list of AgBB (Lowest concentration of interest; 2021)

Compound / Parameter	After 3 days (mg/m ³)			After 28 days (mg/m ³)		
	Emissions limits	Diamond Board One		Emissions limits	Diamond Board One	
		Emissions	Results		Emissions	Results
TVOC	≤ 10	≤ 10	Pass	≤ 1	≤ 1	Pass
Σ SVOC	-	-	-	≤ 0,1	≤ 0,1	Pass
R-Wert	-	-	-	≤ 1	≤ 1	Pass
Σ VOC without LCI	-	-	-	≤ 0,1	≤ 0,1	Pass
Σ Cancerogene	≤ 0,01	≤ 0,01	Pass	≤ 0,001	≤ 0,001	Pass
Formaldehyde	-	-	-	≤ 0,12	≤ 0,12	Pass

E-Conclusions

The results of emission tests achieved for the Knauf Diamond Board One certify that our above-listed plasterboards comply with following emission regulation:

- ✓ **BREEAM exemplary level**
- ✓ **French VOC regulation A+**
- ✓ **German regulation AgBB**

Geoffrey HOUBART
Sustainability & Public Affairs Director