

SUSTAINABILITY DATA SHEET 03.03.11-EN



JUPOL Bio silicate

Silicate interior paint suitable for people who are hypersensitive to preservatives

1. Description

JUPOL Bio silicate is an interior wall paint made on the basis of potassium water glass, free of biocides, plasticizers and heavy metals, so it is impeccable for users with hypersensitivity to preservatives. It is suitable for new and renovation painting of wall and ceiling surfaces in various buildings, including architectural heritage buildings. The color film bonds chemically to the substrate, is well-coated, vapor-permeable, resistant to wet scrubbing (resistant, class 2) and has a dead matte appearance.

2. Emission data relevant for building certification in accordance with DGNB

2.1. Comparison with limit values for AgBB/ABG:

Parameters	Test after 3 days		Test after 28 days		Compliance
	Concentration mg/m ³	Limit Value mg/m ³	Concentration mg/m ³	Limit Value mg/m ³	
TVOC	0,4	≤10	<0,005	≤1	PASS / QS4
TSVOC	<0,005	-	<0,005	≤0,1	PASS / QS4
R-value (dimensionless)	0,19	-	0	≤1	PASS / QS4
Sum of VOC without NIK/LCI	<0,005	-	<0,005	≤0,1	PASS / QS4
Formaldehyde	-	-	<0,003	≤0,1	PASS / QS4
Any individual carcinogens	<0,001	≤0,01	<0,001	≤0,001	PASS / QS4

Based on emissions testing (in accordance with ISO 16000 series and AgBB criteria), and the absence of substances classified as CMR (Cat. 1A/1B), SVHCs under REACH, heavy metals, and other hazardous ingredients as listed in the DGNB criteria ENV 1.2, this product qualifies for the highest quality level Q4 under the DGNB certification system. It supports optimal indoor air quality and human health protection in accordance with sustainable building standards.

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3. Emission data relevant for building certification in accordance with LEED

3.1. Comparison with limit values for LEED v4.1 BETA

Parameters	Test after 28 days		
	Concentration µg/m ³	Limit Value µg/m ³	Compliance
TVOC	<5	≤1000	PASS
Sum of VOC without NIK/LCI	<5	≤100	PASS
Formaldehyde	<3	≤10	PASS
R-Value (dimensionless)	0	≤1	PASS

Based emissions test results in accordance with ISO 16000 series, this product meets the requirements for low-emitting materials under LEED v4.1 (EQ Credit: Low-Emitting Materials).

4. Emission data relevant for building certification in accordance to BREEM

4.1. Comparison with limit values for BREEM NOR

Parameters	Area specific emission rate µg/(m ² /h)	Limit value µg/(m ² /h)	Compliance
TVOC (EN16516) 28 days	<2	≤200	PASS
Total carcinogens	<1	≤5	PASS
Formaldehyde 3 days	<2	≤24	PASS
Formaldehyde 28 days	<2	≤50	PASS

This product meets the stringent requirements for low-emitting materials under BREEAM NOR New Construction (Hea 02 and Hea 09), based on emissions testing and compliance with the applicable European standards (e.g., AgBB, EN 16516).

4.2. Comparison with limit values for BREEM International

Parameters	Concentration mg/m ³	Basic Level mg/m ³	Exemplary Level mg/m ³	Compliance
Formaldehyde 28 days	<0,003	≤0,06	≤0,01	PASS / Exemplary Level
TVOC (EN16516) 28 days	<0,005	≤1	≤0,3	PASS / Exemplary Level
TSVOC 28 days	<0,005	-	≤0,1	PASS / Exemplary Level
Total carcinogens 28 days	<0,001	≤0,001	≤0,001	PASS / Exemplary Level

This product meets the stringent requirements for low-emitting materials under BREEAM International New Construction (Hea 02 and Hea 09), based on emissions testing and compliance with the applicable European standards (e.g., AgBB, EN 16516). Due to the verified performance the product qualifies for the Exemplary Level criteria, contributing additional credits within the BREEAM International assessment.

5. VOC content in accordance with EN ISO 11890-2:2014

VOC (Volatile Organic Compounds): EU limit value for this product category A/a - Interior matt walls and ceilings: 30 g/L. This product contains max. 1 g/L

6. Additional performances:

Formaldehyde absorption in accordance to 16000-23

7. Material Ingredients Disclosure Statement

7.1. Ingredient Inventory

This product contains the following primary ingredients, disclosed to a threshold of 0.1% (1,000 ppm):

- Water
- Styrene acrylic binder (<10%)
- Calcium carbonate (<40%)
- Titanium dioxide (<10%)
- Potassium silicate (<5%)
- Xanthan gum (<0,5%)
- Cellulose ether thickener (<0,5%)
- Feldspar (<20%)
- Additives (rheology modifiers, defoamer, wetting agents, silicate stabiliser) <5%

7.2. Hazard Assessment (per GHS / REACH)

This product does not contain any substances that are:

A: REACH Regulation – Substances of Very High Concern (SVHC)

- This product does not contain any substances currently listed on the REACH Candidate List of Substances of Very High Concern (SVHC) (as published by ECHA), in concentrations greater than 0.1% (w/w).

B: CMR Substances (Carcinogenic, Mutagenic, Reprotoxic)

- Formaldehyde: The product does not contain formaldehyde classified as Carcinogenic, Mutagenic, or Reprotoxic (CMR) Category 1A or 1B under the EU CLP Regulation (EC No 1272/2008).
- Other CMR Substances: The product does not contain any other substances classified as Carcinogenic, Mutagenic, or Reprotoxic (CMR) Category 1A or 1B under the EU CLP Regulation (EC No 1272/2008).

C: Heavy Metals

- This product is free from intentionally added heavy metals, including but not limited to lead (Pb), cadmium (Cd), mercury (Hg), arsenic (As), antimony (Sb), selenium (Se), and hexavalent chromium (Cr⁶⁺).
- These metals are regulated under REACH Annex XVII, the RoHS Directive (2011/65/EU), and identified as priority hazardous substances under various environmental frameworks.

D: Volatile Organic Compounds (VOC)

- The product complies with low-emitting material requirements under LEED v4.1, BREEAM Hea 02/ Hea 09, and DGNB Criteria ENV 1.2, based on:

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- VOC content testing (ISO 11890-2),
 - VOC emissions testing (ISO 16000 series),
 - Compliance with AgBB / EU LCI reference values.
- Formaldehyde emissions are below 10 µg/m³ (28-day), in line with the most restrictive thresholds.

E: Living Building Challenge (LBC) “Red List” Compliance

- This product does not contain any substances listed on the Living Building Challenge (LBC) “Red List”, which includes:
 - PVC and related vinyl polymers,
 - Halogenated propellants and halogenated flame retardants (e.g., PBDEs, TBBPA, HBCDD),
 - Per- and polyfluoroalkyl substances (PFAS),
 - Bisphenol A (BPA) and related analogues,
 - Phthalates,
 - Heavy metals as noted above.
- The Red List encompasses substances of concern for their carcinogenicity, endocrine disruption, bio-accumulation, and persistence in the environment.

F: Endocrine Disrupting Chemicals (EDCs)

- The product is free from intentionally added known or suspected endocrine-disrupting chemicals, including nonylphenol ethoxylates, BPA, and certain phthalates, in line with precautionary principles promoted by DGNB and LBC.

8. Documentation available for this product:

- MSDS JUPOL Bio silicate
- TDS JUPOL Bio silicate
- Declaration of performance JUPOL Bio silicate
- EUROFINS Report 392-2021-00599903_A
- VOC Report JUPOL Bio silicate
- Eco-Institute test report No. 54150-001

9. Management systems

- Quality Management: ISO9001:2015
- Environment Management: ISO14001:2015
- Occupational Health and Safety Management: ISO45001:2018
- Energy Management: ISO50001:2018
- Responsible Care: CEFIC

The information provided is based on the best available data from raw material suppliers and product formulation records.

To the manufacturer’s knowledge, this product does not pose significant health risks under normal conditions of use in indoor environments.

The manufacturer is committed to transparency and sustainable product development.

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