



## SUSTAINABILITY DATA SHEET

# KEIM TWINSTAR®



## 1. PRODUCT DESCRIPTION

KEIM Twinstar is a sol-silicate based, innovative, functional coating for facades. It perfectly combines high application efficiency with a biocide-free formulation approach for clean facades. KEIM Twinstar also meets the requirements according to DIN 18 363, 2.4.1 (silicate emulsion paint). KEIM Twinstar is awarded with the Cradle to Cradle Certified®-Certificate Silver and the C2C Certified Material Health Certificate™ Gold. For a detailed product description, as well as processing information, please refer to the Technical Data Sheet.

## 2. INGREDIENTS

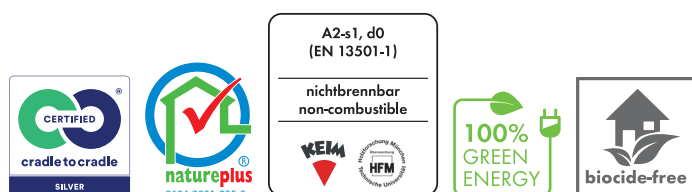
<b>2.1 Declaration of ingredients</b> (according to VdL directive 01) (VdL: German Paint and Printing Ink Association)	Sol silicate mixture (aqueous solution), polymer, titanium dioxide, inorganic colour pigments (depending on the colour shade), mineral fillers, water, hydrophobic agent, stabiliser, thickening agent, wetting agent, defoamer
<b>2.2 Organic content</b> (according to DIN 18363 section 2.4.1)	< 5%
<b>2.3 VOC content</b> (according to Decopaint directive 2004/42/EC)	Cat. A/c, Wb, VOC max. 40 g/l This product contains < 3 g/l
<b>2.4 Solvent content</b> (according to VdL directive 01)	Not included (no recipe component)
<b>2.5 Aromatic hydrocarbons</b>	Not included (no recipe component)
<b>2.6 Plasticiser content</b> (according to VdL directive 01)	Not included (no recipe component)
<b>2.7 Hazardous ingredients</b> (according to CLP regulation)	See Safety Data Sheet section 3 (link under 9. Further Documents)
<b>2.8 Active ingredients for coating protection</b> (film preservative, product type 7 as per BPR)	Not included (no recipe component)
<b>2.9 Active ingredients for storage protection</b> (film preservative, product type 6 as per BPR)	Not included (no recipe component)
<b>2.10 Lead, cadmium, chromium VI, arsenic, mercury</b>	Not included (no recipe component)
<b>2.11 CMR substances of categories 1A and 1B</b> (according to CLP regulation)	Not included (no recipe component)
<b>2.12 PBT and vPvB substances</b> (according to REACH regulation)	Not included (no recipe component, see SDS section 2)
<b>2.13 Ozone-depleting substances</b> (according to regulation (EC) Nr. 1005/2009)	Not included (no recipe component)

<b>2.14 Formaldehyde/formaldehyde depot substances</b> (emission test chamber)	Not specified
<b>2.15 Compliance with the limitation of emissions of the titanium dioxide industry</b> (according to directive 92/112/EEC or directive 2010/75/EU)	Yes
<b>2.16 Halogenated organic compounds</b>	See Safety Data Sheet section 12 (link under 9. Further Documents)

**3. TEST REPORTS / EXPERT REPORTS / CERTIFICATIONS / LOGOS**

<b>3.1 Test reports</b>	On request
<b>3.2 Export reports</b>	Environmental Product Declaration (EPD) (link under 9. Further Documents)
<b>3.3 Product code / GISCODE</b>	BSW40

**3.4 Certification / Logos** (Further national certifications/logos can be found on the KEIM website of the respective country)



**4. INFORMATION FOR BUILDING CERTIFICATION AS PER DGNB\***


<b>4.1 Product group</b> (ENV 1.2)	Coatings for mineral surfaces outside such as e.g. concrete, masonry, mineral mortars and fillers, renders, ETICS, wall-papers (facade wallpapers), gypsum plasterboards, etc.
<b>4.2 VOC content</b> (according to directive 2004/42/EC)	< 3 g/l
<b>4.3 Dilutability with water</b> (according to directive 2004/42/EC)	Yes
<b>4.4 Product-specific life cycle assessment values</b> (ENV 1.1 and ENV 2.1)	According to EPD
<b>4.5 Quality level</b> (ENV 1.2)	Coatings on mainly mineral substrates outdoors: Complies with quality level 4 - VOC ≤ 40 g/l according to VdL directive 01
<b>4.6 Product-specific life cycle</b> (ECO 1.1)	15 Years (according to BNB: National rating system for sustainable building)
<b>4.7 Safety and risks of failure</b> (SOC 1.7)	No negative impact, since no halogens are present
<b>4.8 Cleaning instruction</b> (PRO 1.5, PRO 2.2)	See Technical Data Sheet (link under 9. Further Documents)

**5. INFORMATION ON SUITABILITY ACCORDING TO LEED 2009**

<b>5.1 Product group</b> (EQ4.2)	Flat Topcoat
<b>5.2 VOC</b> (as per SCAQMD Rule 1113, Architectural Coatings, rules in effect on February 5, 2016)	< 3 g/l (limit value < 50 g/l)
<b>5.3 VOC limit fulfilled</b>	Yes
<b>5.4 Recycling rate</b> (from post-consumer sources) (MR4)	KEIM Twinstar can achieve the service life of the building components. KEIM Twinstar does not have a real after-use phase. The final disposal is carried out in conjunction with the building components via building rubble. If it is pure building rubble, recycling takes place in accordance with national regulations. Normally, building rubble is crushed and returned to the economic cycle as a substitute for fillers (road construction, concrete).
<b>5.5 Recycling rate</b> (from production-relevant sources) (MR4)	0%
<b>5.6 Fast renewable raw materials</b> (MR 6)	0%
<b>5.7 Regional materials</b> (MR 5)	Not specified
<b>5.8 Production site</b> (MR 5)	Keimfarben GmbH, Keimstraße 16, 86420 Diederf

**6. INFORMATION FROM C2C CERTIFIED® CERTIFICATION**

KEIM takes responsibility for society and for the environment. The certificate Cradle to Cradle Certified® confirms our commitment and the use of environmentally friendly, healthy and recyclable materials, a climate-friendly and responsible production process and the use of renewable energy.

<b>6.1 Heavy metals in mineral fillers</b> (DIN EN 71-3)	Limits values are in compliance with C2C Certified® Standard 3.1
<b>6.2 Radioactivity in mineral fillers</b> (according to directive 2013 / 59 / Euroatom)	Activity concentration index in the product < 1
<b>6.3 Compliant with the C2C Certified® Banned List</b> (according to directive of C2C PII)	Yes
<b>6.4 CMR substances</b> (according to directive C2C PII)	Not included (no recipe component)
<b>6.5 Contribution to the fulfilment of the following SDGs</b> (according to directive C2C PII)	

## **7. MANAGEMENT SYSTEMS AND CORPORATE CERTIFICATIONS**

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### **7.1 Quality and environmental management**

The manufacturing / marketing company is certified according to:

- DIN EN ISO 9001
- DIN EN ISO 14001
- Energy audit according to DIN EN 16247-1

## **8. SAFETY INSTRUCTIONS**

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### **8.1 See Safety Data Sheet**

(link under 9. Further Documents)

## **9. FURTHER DOCUMENTS**

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The following documents can be found at [www.keim.com](http://www.keim.com):

- Technical Data Sheet (TDS)
- Safety Data Sheet (SDS)
- Environmental Product Declaration (EPD) (exterior paints)
- Sustainability brochure
- Product video
- Product brochure
- Cradle to Cradle brochure

The idea of sustainability defines and guides our joint entrepreneurial activities. Our belief in the added value of mineral building products takes this premise into account. The character of our company is shaped by the spirit of its founder. For more than 140 years, we have been committed to A. W. Keim's guiding principle of looking carefully to the future and subsequent generations. To this day, this premise carries our entrepreneurial activities far beyond the innovative use of natural raw materials - by creating regional jobs, valuing our employees and handling our limited resources with care. Sustainable building and renovation are therefore a very decisive contribution to a healthy living situation, quality of life and a better future. This document is therefore intended to help you to assess the sustainability of our products.

The information is based on the requirements of the product data sheet of VDL Guideline 11 (3rd revision). Further details are additional information.

This data sheet was compiled on the basis of the latest state of the art and our experience. In view of the wide range of requirements, every user is not released from his obligation to check on his own responsibility our evaluation for suitability and requirements. This data sheet is only valid in its latest version and in connection with the current Technical Information and the Safety Data Sheet. If necessary, you will find the latest issue on our website.



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