



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 complies with the requirements of DIN 18 363, 2.4.1 "silicate emulsion paint". KEIM Twinstar is awarded with Cradle to Cradle Certified® Silver and C2C Certified Material Health Certificate™ Gold. For a detailed product description, as well as processing information, please refer to the Technical Data Sheet on www.keim.com.

2. INGREDIENTS

Declaration of ingredients (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.
Declaration of ingredients (according to natureplus)	Full declaration in accordance with the "natureplus®" award guideline: Silicate and calcite fillers, sol-silicate mixture, water, titanium dioxide, polyacrylate, hydrophobing agents, stabilisers, thickeners, wetting agents, defoamers. Origin of the mineral fillers: Germany and/or Austria.
Organic content (according to DIN 18363 section 2.4.1)	< 5 %
Solvent content (according to directive 2004/42/EC)	EU limit value for this product (Cat. A/c): 40 g/l. This product contains: 0 - 3 g/l VOC.
Plasticiser content (according to VdL directive 01) (VdL: German Paint and Printing Ink Association)	Not included (no recipe component)
Aromatic hydrocarbons	Not included (no recipe component)
Plasticiser content (according to VdL directive 01) (VdL: German Paint and Printing Ink Association)	Not included (no recipe component)
Hazardous ingredients (according to CLP regulation)	Refer to section 3 of safety data sheet (link under section: Further documents)
Active ingredients for coating protection (film preservative, product type 7 as per BPR)	Not included (no recipe component)

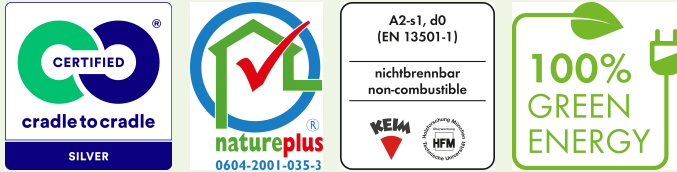
SUSTAINABILITY DATA SHEET – KEIM TWINSTAR®

Active ingredients for storage protection (film preservative, product type 6 as per BPR)	Not included (no recipe component)
Lead, cadmium, chromium VI, arsenic, mercury	Not included (no recipe component)
CMR substances of categories 1A and 1B (according to CLP regulation)	Not included (no recipe component)
PBT and vPvB substances (according to REACH regulation)	Not included (no recipe component, see section 2 of Safety Data Sheet)
Ozone-depleting substances (according to regulation (EC) Nr. 1005/2009)	Not included (no recipe component)
Formaldehyde	Not included (no recipe component)
Per- and polyfluorinated alkyl compounds (PFAS) (according to REACH regulation)	Not included (no recipe component)
Halogenated organic compounds	Refer to section 12 of safety data sheet (link under section: Further documents)
Compliance with the limitation of emissions of the titanium dioxide industry (according to directive 92/112/EEC or directive 2010/75/EU)	Yes
QNG-requirements (according to QNG version 1.3 in Attached Document 313)	Meets the QNG requirements for the avoidance of harmful substances of the building product group facade paints incl. primers: VOC ≤ 30 g/l (water-based formulation); declaration of biocidal active substances; lead compounds ≤ 0.10 %

3. TEST REPORTS / EXPERT REPORTS / CERTIFICATIONS / LOGOS

Test reports	On demand
Export reports	Environmental product declaration (EPD) (link under section: Further documents)
Product code / GISCODE (according to directive 2004/42/EC)	BSW 40
MAL code	

Certification / Logos



4. INFORMATION FOR BUILDING CERTIFICATION AS PER DGNB

Product group (ENV 1.2)	Coatings for mineral surfaces outside such as concrete, masonry, mineral mortars and fillers, renders, ETICS, wallpapers (facade wallpapers), gypsum plasterboards, etc.
Solvent content (according to directive 2004/42/EC)	≤ 3 g/l
Dilutability with water (according to directive 2004/42/EC)	Yes
Product-specific life cycle assessment values (ENV 1.1 and ENV 2.1)	According to EPD
Quality level (ENV 1.2)	DGNB-Version 2018: Coatings on mainly mineral substrates outdoors: Complies with quality level 4 - VOC ≤ 40 g/l according to VdL directive 01. DGNB-Version 2023: Coatings on mineral substrates outdoors: Complies with quality level 4 - VOC ≤ 40 g/l according to VdL directive 01.
Product-specific life cycle (ECO 1.1)	15 years (according to BNB: National rating system for sustainable building)
Safety and risks of failure (SOC 1.7)	No negative influence, since no halogenes contained
Cleaning instruction (PRO 1.5, PRO 2.2)	Refer to technical data sheet (link under section: Further documents)

5. ANGABEN ZUR EIGNUNG NACH LEED V4.1

Product group (EQ4.2)	Flat Topcoat
VOC (as per SCAQMD Rule 1113, Architectural Coatings, rules in effect on February 5, 2016)	< 3 g/l (limit value < 50 g/l)

SUSTAINABILITY DATA SHEET – KEIM TWINSTAR®

VOC limit met	Yes
Recycling rate (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).
Recycling rate (from production-relevant sources) (MR4)	0 %
Fast renewable raw materials (MR 6)	0 %
Regional materials (MR 5)	No information
Production site (MR 5)	KEIMFARBEN GMBH, Keimstraße 16, D-86420 Diedorf, Tel. +49 821 4802-0

6. INFORMATION FROM C2C CERTIFIED® CERTIFICATION

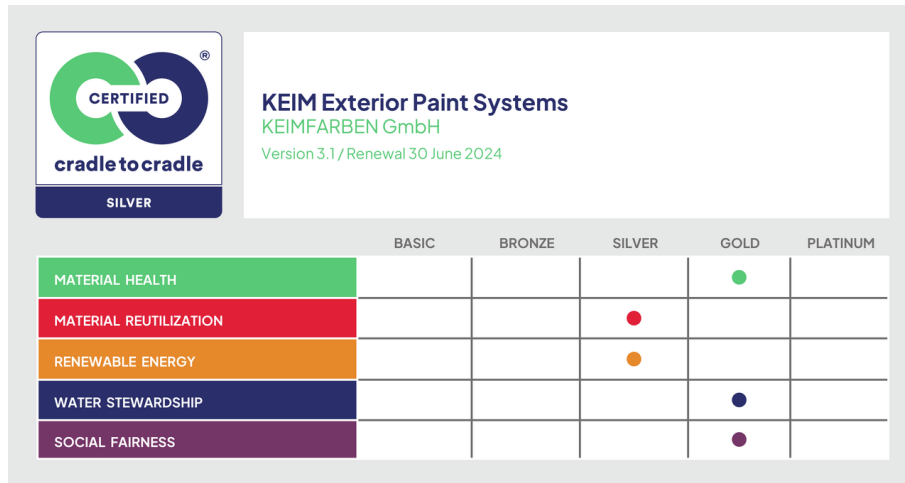
KEIM takes responsibility for society and for the environment. The certificate Cradle to Cradle Certified® confirms our commitment and the use of environmentally friendly, healthy and recyclable materials, a climate-friendly and responsible production process and the use of renewable energy.

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

Contribution to the fulfilment of the following SDGs
(according to directive C2C PII)



C2C-Scorecard



7. MANAGEMENT SYSTEMS AND CORPORATE CERTIFICATIONS

Quality and environmental management

The manufacturing/marketing company is certified according to DIN EN ISO 9001 and DIN EN ISO 14001. The company performs a regular energy audit according to DIN EN 16247-1.

8. SAFETY INSTRUCTIONS

See materials safety data sheet

(link under section: Further documents)

9. FURTHER DOCUMENTS

Further documents can be found under <https://www.keim.com/en-de/products/exterior-paints/twinstar/>.

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 (4th revision). Further details are additional information.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release the purchaser and processor from the obligation to convince themselves of the suitability of our products for the intended application with due care, which is general practice in trade and crafts. The general rules of construction technology must be observed. We reserve the right to make modifications to improve the product or its application. This edition supersedes all earlier editions.

