



PRODUCT CARBON FOOTPRINT (PCF) INFORMATION SHEET

Sika Retarder SE

Reference Year: 2024

Produced in: Sweden

SGAN: 103323

Sika® Retarder SE is a retarding admixture which delays the initial setting time of concrete

DISCLAIMER

The information contained herein and any other advice are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. The information only applies to the application(s) and product(s) expressly referred to herein. In case of changes in the parameters of the application, such as changes in substrates etc., or in case of a different application, consult Sika's Technical Service prior to using Sika products. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

1 SUSTAINABLE PRODUCTS AT SIKA

Thanks to its innovation power, Sika can significantly help reduce global greenhouse gas emissions. It's the ambition of the company to combine sustainability with high performance. All solutions therefore have the objective to reduce the carbon footprint through innovative products for industry and construction. To face the global challenge, Sika is addressing climate change comprehensively in its strategic development with the commitment to become a net zero company.

2 METHODOLOGY

The Life Cycle Assessment methodology used to conduct the study is the TFS PCF Guideline, the Catena-X Product Carbon Footprint Rulebook and ISO 14067, which are based on ISO 14040 and ISO 14044 standards. The declared unit, system boundaries, cut-off criterion, allocation method and impact assessment methods are specified in the following section.

DECLARED UNIT

1kg product, packed, at Sika factory gate.

SYSTEM BOUNDARIES

Raw material production, transportation to Sika gate, and the production process at Sika including waste processing are included in the study. This is referred to as the cradle-to-gate scope.

ASSUMPTIONS

The LCA study represents an attributional LCA.

Transport distances for waste during production were assumed to be 100 km.

CUT-OFF

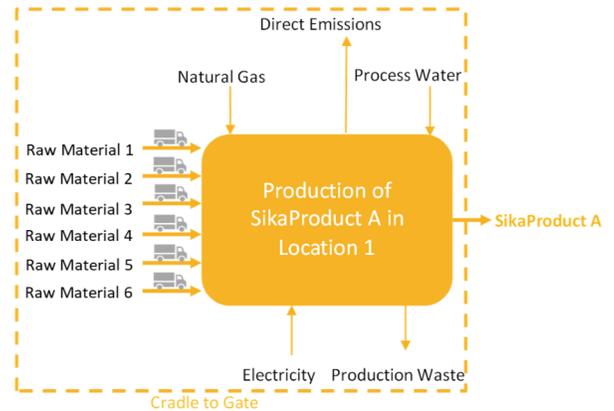
The manufacturing of the production machines and systems and associated infrastructure were not considered. Additionally, inputs (solvents, lubricant oils) needed for maintenance of the production line, lighting, hygiene related water use, transportation of employees were excluded from the analysis. Direct fugitive emissions were cut-off due to insignificance. In case of data gaps, a maximum of 3% of raw materials per mass was excluded.

ALLOCATION METHOD OF FOREGROUND SYSTEM

Whenever allocation could not be avoided, mass allocation was used. This applies predominantly to the production stage where the allocation is applied on factory segment level. The allocation rules in compliance with the TFS Guideline were followed.

LIFE CYCLE IMPACT ASSESSMENT METHOD

The impact assessment method IPCC AR6 was used to calculate the Global Warming Potential (GWP) results within 100 years including land use change emissions for the given study.



3 RESULTS

Indicator	Unit	Value
GWP 100 excl. biogenic CO ₂	[kg CO ₂ - eq / declared unit]	0.722
GWP 100 incl. biogenic CO ₂	[kg CO ₂ - eq / declared unit]	0.673
Fossil Carbon Content of Product	[kg C / declared unit]	0.001
Biogenic Carbon Content of Product		0.013

4 DATA QUALITY AND QUALITY CONTROL

As part of Sika's ongoing commitment to transparency in carbon emissions across value chains, the company has developed the Sika® Carbon Compass, an in-house tool for automated PCF calculations. The Sika® Carbon Compass has undergone methodology verification by TÜV Rheinland Energy & Environment GmbH in accordance with the TFS PCF Guideline, the Catena-X Product Carbon Footprint Rulebook and ISO 14067.

DATA SOURCES

Primary data was used whenever possible. In the absence of primary data, secondary data was utilized. For raw materials and waste processing, the data was sourced from Sphera's Managed LCA Content (version CUP 2023.2) and the ecoinvent database (version 3.10). For transportation, the GLEC Framework (version 3.0) was referenced, while electricity data was drawn from AIB 2021 and IEA 2022. For water use, the BEIS/Defra UK Government GHG Conversion Factors for Company Reporting were employed. Secondary datasets used in this LCA are not older than 5 years. The most representative secondary data in terms of technology (with priority), geography and time was selected.

DATA QUALITY OF PRIMARY DATA

The data quality rating considers time, geographical and technological representativeness, based on the data quality assessment described in the TFS PCF Guideline.

Data Point	Data Source	Data Quality
Product formulation	Derived from Sika's ERP Systems. Secondary from Sphera MLC Databases.	Good
Raw Material Transport	Derived from Sika's ERP Systems.	Very Good
Manufacturing Process	Derived from Factory Reporting, mass allocation applied per factory segment.	Good

VALIDITY

The document is valid for 3 years following the issuing date.

LIMITATIONS

A comparison of PCF data is only possible if all the data sets to be compared were created according to the same standards and when the same background database is used. In addition, product-specific characteristics of performance shall be taken into account.