

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	Hilti Aktiengesellschaft
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-HIL-20250282-CBN1-EN
Issue date	10.09.2025
Valid to	09.09.2030

HAS-U A4
Hilti AG

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EPD
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General Information

Hilti AG

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-HIL-20250282-CBN1-EN

This declaration is based on the product category rules:

Screws, 01.06.2023
(PCR checked and approved by the SVR)

Issue date

10.09.2025

Valid to

09.09.2030

Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)

Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

HAS-U A4

Owner of the declaration

Hilti Aktiengesellschaft
Feldkircher Strasse 100
9494 Schaan
Liechtenstein

Declared product / declared unit

HAS U A4

Scope:

This document refers to HAS-U A4 M12x220 a representative product for the HAS-UA4 portfolio. The HAS HAS-U A4 M12x220 was selected as a representative product because it is the best-selling item in the portfolio. Specific data from the HILTI AG manufacturing plant in Zhanjiang was collected for the preparation of the LCA. The input and output flows used in this calculation were collected as annual average consumption for the year 2023. The procedure for allocating the data to the declared unit is described in the chapter Allocation. The owner of the declaration is responsible for the underlying information and evidence; any liability of the IBU regarding manufacturer information, eco-balance data and evidence is excluded.

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR	
Independent verification of the declaration and data according to ISO 14025:2011	
<input type="checkbox"/>	internally
<input checked="" type="checkbox"/>	externally

Matthias Klingler,
(Independent verifier)

Product

Product description/Product definition

HAS-U A4 is a threaded rod used for anchoring applications to resist static, seismic and fatigue structural loads in the construction industry. The HAS-U A4 rod is used together with Hilti injection mortars or capsules.

IT- Number	Product name	Weight total [kg]
2223847	Anchor rod HAS-U A4 M12x220	0,20457
2223836	Anchor rod HAS-U A4 M10x95	0,06914
2223837	Anchor rod HAS-U A4 M10x115	0,08044
2223838	Anchor rod HAS-U A4 M10x130	0,08891
2223839	Anchor rod HAS-U A4 M10x170	0,11151
2223840	Anchor rod HAS-U A4 M10x190	0,12281
2223841	Anchor rod HAS-U A4 M10x220	0,13976
2223842	Anchor rod HAS-U A4 M12x110	0,11359
2223843	Anchor rod HAS-U A4 M12x120	0,12189
2223844	Anchor rod HAS-U A4 M12x160	0,15509
2223845	Anchor rod HAS-U A4 M12x180	0,17169
2223846	Anchor rod HAS-U A4 M12x200	0,18829
2223847	Anchor rod HAS-U A4 M12x220	0,20469
2223848	Anchor rod HAS-U A4 M16x150	0,27116
2223849	Anchor rod HAS-U A4 M16x165	0,29381
2223850	Anchor rod HAS-U A4 M16x190	0,33156
2223851	Anchor rod HAS-U A4 M16x220	0,37686
2223864	Anchor rod HAS-U A4 M8x80	0,03661
2223865	Anchor rod HAS-U A4 M8x110	0,04756
2223866	Anchor rod HAS-U A4 M8x150	0,06216
2223919	Anchor rod HAS-U A4 M12x260	0,24319
2223920	Anchor rod HAS-U A4 M12x300	0,27719
2223921	Anchor rod HAS-U A4 M16x260	0,43789
2223922	Anchor rod HAS-U A4 M16x300	0,49829
2223923	Anchor rod HAS-U A4 M16x350	0,57379
2223924	Anchor rod HAS-U A4 M16x380	0,61909
2223925	Anchor rod HAS-U A4 M20x180	0,50081
2223926	Anchor rod HAS-U A4 M20x240	0,64121
2223927	Anchor rod HAS-U A4 M20x260	0,68801
2223928	Anchor rod HAS-U A4 M20x300	0,78161
2223929	Anchor rod HAS-U A4 M20x350	0,89861
2223930	Anchor rod HAS-U A4 M20x400	1,01561
2223931	Anchor rod HAS-U A4 M20x480	1,20281
2223932	Anchor rod HAS-U A4 M24x300	1,16733
2223933	Anchor rod HAS-U A4 M24x450	1,68138
2223934	Anchor rod HAS-U A4 M27x340	1,67788
2223935	Anchor rod HAS-U A4 M30x380	2,31036
2277006	Anchor rod HAS-U A4 nonHDG M39 Frame	5,35546
2277005	Anchor rod HAS-U A4 nonHDG M36 Frame	4,10720
2277004	Anchor rod HAS-U A4 nonHDG M33 Frame	3,14050
2277003	Anchor rod HAS-U A4 nonHDG M30 Frame	2,31036
2277002	Anchor rod HAS-U A4 nonHDG M27 Frame	1,67788
2277001	Anchor rod HAS-U A4 nonHDG M24 Frame	1,68138
2277000	Anchor rod HAS-U A4 nonHDG M20 Frame	1,20281
2276999	Anchor rod HAS-U A4 nonHDG M16 Frame	0,49829
2276998	Anchor rod HAS-U A4 nonHDG M12 Frame	0,27719
2276997	Anchor rod HAS-U A4 nonHDG M10 Frame	0,08044
2276996	Anchor rod HAS-U A4 nonHDG M8 Frame	0,05350
2277060	Anchor rod HAS-U HCR nonHDG M39 Frame	5,35546
2277059	Anchor rod HAS-U HCR nonHDG M36 Frame	4,10720
2277058	Anchor rod HAS-U HCR nonHDG M33 Frame	3,14050
2277057	Anchor rod HAS-U HCR nonHDG M30 Frame	2,31036
2277056	Anchor rod HAS-U HCR nonHDG M27 Frame	1,67788
2277055	Anchor rod HAS-U HCR nonHDG M24 Frame	1,68138
2277054	Anchor rod HAS-U HCR nonHDG M20 Frame	1,20281
2277053	Anchor rod HAS-U HCR nonHDG M16 Frame	0,49829
2277052	Anchor rod HAS-U HCR nonHDG M12 Frame	0,27719
2277051	Anchor rod HAS-U HCR nonHDG M10 Frame	0,08044
2277050	Anchor rod HAS-U HCR nonHDG M8 Frame	0,05350

For placing the product on the market in the European Union European Free Trade Association EU/EFTA (with the exception

of Switzerland) *Regulation (EU) No. 305/2011 (CPR)* applies. The product needs a declaration of performance based on the European Technical Approval. HAS-U A4 rod is present in several ETA approvals of Hilti Injection Mortars and Hilti anchoring capsules. Please see following table for an overview of ETA approvals with HAS-U A4 rods
For each application and use the respective national provisions apply.

The Hilti HAS-U A4 threaded rod is anchor fastener for use with Hilti Injection Mortars in concrete or masonry. The rod is installed into drilled hole and after curing time of mortar nut and washer are installed and nut is torqued

Application

The product is used in various construction applications where threaded rods are needed. Including commercial, industrial, residential and infrastructure segments. The main application of the HAS-U A4 rod is in structural connections of steel to concrete, where the HAS-U A4 rod with appropriate Hilti Injection Mortar or capsule serves as a fastener of a steel baseplate into concrete or masonry base material

Technical Data

Performance data of the product are described in related ETA certificates, Hilti technical data for specific Hilti Injection Mortar used with HAS-U A4 rod.

For diameters M24 and smaller:

$f_{uk} = 700 \text{ N/mm}^2$

$f_{yk} = 450 \text{ N/mm}^2$

Elongation at fracture ($l_0=5d$) > 12% ductile

For diameters above M24:

$f_{uk} = 500 \text{ N/mm}^2$

$f_{yk} = 210 \text{ N/mm}^2$

Elongation at fracture ($l_0=5d$) > 12% ductile

Constructional data

Name	Value	Unit
Screw diameter	12	mm
Plate diameter	-	mm
Usage category as per ETA	-	-
Characteristic tension resistance as per ETA	-	kN
Plate stiffness Wall plug place stiffness as per EOTA Technical Report TR 026	-	kN/mm

Base materials/Ancillary materials

Name	Value	Unit
Stainless Steel	100	%

HAS-U A4 follows ISO 3506-1
the nut follows DIN 934 (A4 material)
the washer follows DIN 125-1 (A4 material)

Information on pre- and post consumer recycled content:

100% of the declared product derives from electric arc furnace (ARC) produced steel and carries a secondary material (recycled material) content of 75%. Based on the most comprehensive market information and internal evaluations available, the pre-consumer share is on average approximately 25% (out of 75%), which means a 18.75% share of the steel

components, while the post-consumer share is on average approximately 75% (out of 75%), which means a 56.25% share of the steel components.

Reference service life

The lifetime of the HAS-U A4 rod is defined in EAD 330499-01-0601 and depends on the Hilti Injection Mortar or capsule used.

LCA: Calculation rules

Declared Unit

The product declared here is a screw from HILTI AG with the designation 'Anchor rod HAS-U A4 M12x220', representative of the HAS-U A4 portfolio. The declared unit refers to 1 kg of the fastening system. The packaging, based on 1 kg, is also included in the calculation at 0.016 kg. The following table shows the data for the decarbonized unit.

Declared unit and mass reference

Name	Value	Unit
Declared unit	1	kg
conversion factor	1	-
Gross density	7900	kg/m ³

System boundary

Type of EPD: From the cradle to the factory gate with modules C1-C4 and module D. The following information modules are defined as system boundaries in this study:

Production stage (A1- A3):

- A1, Raw material,
- A2, Transport to the manufacturer,
- A3, Production.

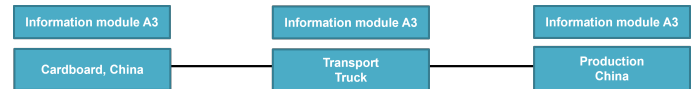
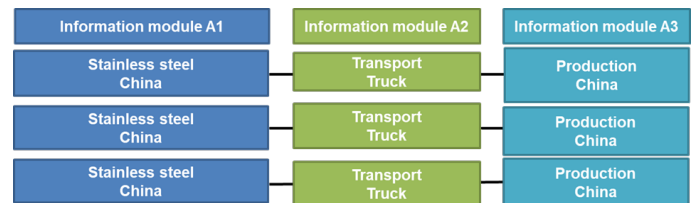
End of life (C1- C4):

- C1, Dismantling/demolition,
- C2, Transport,
- C3, Waste treatment,
- C4, Disposal.

Reuse, recovery and recycling potential (D)

To accurately record the indicators and environmental impacts of the declared unit, a total of eight information modules are considered. The information modules A1 to A3 cover the material provision, transport to the production site, and the production processes of the product itself. The intermediate products are sourced from Asia and

transported by truck. The following flow charts illustrate the underlying production process.



Information modules C1 to C4 cover the dismantling or demolition of the product from the building, transportation for waste disposal, waste treatment and final disposal of the product. Additionally, reuse, recovery and recycling potentials are addressed in information module D.

Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Europe

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to EN 15804 and the building context, respectively the product-specific characteristics of performance, are taken into account. Sphera LCA for experts

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

No renewable raw materials are used; therefore, the biogenic carbon is reported as zero. However, the packaging contains the following raw material that includes biogenic carbon.

Information on describing the biogenic carbon content at factory gate

Name	Value	Unit
Biogenic carbon content in product	-	kg C
Biogenic carbon content in accompanying packaging	0.001	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO₂.

End of life (C1-C4)

In the information module C1, the removal of the screw from the building is calculated. The demolition is carried out with an electric screwdriver. The electrical energy consumption for the tool is assumed to be 0.5 MJ for the specified unit. The electricity consumption is calculated on the basis of a European electricity mix. In the Information Module C3, the waste treatment of the waste from the declared unit, resulting from the demolition of the building, is calculated at the waste treatment plant. The background data sets used are RER: Construction Waste Treatment Plant. The approx. 3% mass loss is process-related from the data set and is deposited in the data set.



Name	Value	Unit
Collected as mixed construction waste	1	kg
Recycling	0.97	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Module D presents the substitution potential of primer stainless steel through a recycling scenario.

Name	Value	Unit
Stainless steel for recycling Net flow	0,467	kg

LCA: Results

The impact assessment of environmental loads is carried out in accordance with EN 15804+A2. The characterisation factors are selected in accordance with PCR (EF3.1).

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 kg HAS-U A4

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Global Warming Potential total (GWP-total)	kg CO ₂ eq	4.33E+00	6.96E-02	4.99E-03	2.72E-03	0	-2.58E+00
Global Warming Potential fossil fuels (GWP-fossil)	kg CO ₂ eq	4.32E+00	6.96E-02	4.79E-03	2.68E-03	0	-2.59E+00
Global Warming Potential biogenic (GWP-biogenic)	kg CO ₂ eq	1.89E-03	1.57E-05	2.03E-04	0	0	1.24E-02
Global Warming Potential luluc (GWP-luluc)	kg CO ₂ eq	5.32E-03	1.04E-05	6.45E-07	3.63E-05	0	-7.01E-03
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC11 eq	1.72E-11	7.65E-13	6.23E-16	4.84E-15	0	-1.67E-15
Acidification potential of land and water (AP)	mol H ⁺ eq	2.91E-02	1.63E-04	2.39E-05	1.34E-05	0	-1.61E-02
Eutrophication potential aquatic freshwater (EP-freshwater)	kg P eq	5.06E-06	3.64E-08	1.31E-09	1.04E-08	0	-3.79E-06
Eutrophication potential aquatic marine (EP-marine)	kg N eq	3.25E-03	2.73E-05	1.17E-05	6.18E-06	0	-2.32E-03
Eutrophication potential terrestrial (EP-terrestrial)	mol N eq	3.6E-02	2.92E-04	1.28E-04	6.83E-05	0	-2.51E-02
Formation potential of tropospheric ozone photochemical oxidants (POCP)	kg NMVOC eq	1.04E-02	8.13E-05	2.4E-05	1.71E-05	0	-7.05E-03
Abiotic depletion potential for non fossil resources (ADPE)	kg Sb eq	2.18E-04	3.29E-09	1.34E-10	2.81E-09	0	-7.6E-05
Abiotic depletion potential for fossil resources (ADPF)	MJ	5.35E+01	1.29E+00	6.64E-02	5.02E-02	0	-3.22E+01
Water use (WDP)	m ³ world eq deprived	9.85E-01	3.98E-03	1.25E-05	5.13E-04	0	-1.07E+00

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 kg HAS-U A4

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Renewable primary energy as energy carrier (PERE)	MJ	1.06E+01	1.84E-01	4.86E-04	5.35E-03	0	-6.03E+00
Renewable primary energy resources as material utilization (PERM)	MJ	2.7E-01	0	0	0	0	0
Total use of renewable primary energy resources (PERT)	MJ	1.09E+01	1.84E-01	4.86E-04	5.35E-03	0	-6.03E+00
Non renewable primary energy as energy carrier (PENRE)	MJ	5.35E+01	1.29E+00	6.64E-02	5.02E-02	0	-3.22E+00
Non renewable primary energy as material utilization (PENRM)	MJ	0	0	0	0	0	0
Total use of non renewable primary energy resources (PENRT)	MJ	5.35E+01	1.29E+00	6.64E-02	5.02E-02	0	-3.22E+00
Use of secondary material (SM)	kg	5.05E-01	0	0	0	0	4.67E-01
Use of renewable secondary fuels (RSF)	MJ	0	0	0	0	0	0
Use of non renewable secondary fuels (NRSF)	MJ	0	0	0	0	0	0
Use of net fresh water (FW)	m ³	2.55E-02	2.59E-04	5.31E-07	1.49E-05	0	-4.4E-02

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:

1 kg HAS-U A4

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed (HWD)	kg	1.87E-08	1.83E-10	2.41E-12	7.26E-12	0	-2.95E-04
Non hazardous waste disposed (NHWD)	kg	4.88E-01	3.2E-04	6.91E-06	1.38E-05	0	2.89E-02
Radioactive waste disposed (RWD)	kg	8.51E-04	1.67E-04	1.06E-07	6.31E-07	0	-2.1E-04
Components for re-use (CRU)	kg	0	0	0	0	0	0
Materials for recycling (MFR)	kg	3E-03	0	0	1E+00	0	0
Materials for energy recovery (MER)	kg	0	0	0	0	0	0
Exported electrical energy (EEE)	MJ	0	0	0	0	0	0
Exported thermal energy (EET)	MJ	0	0	0	0	0	0

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:

1 kg HAS-U A4

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Incidence of disease due to PM emissions (PM)	Disease incidence	ND	ND	ND	ND	ND	ND
Human exposure efficiency relative to U235 (IR)	kBq U235 eq	ND	ND	ND	ND	ND	ND
Comparative toxic unit for ecosystems (ETP-fw)	CTUe	ND	ND	ND	ND	ND	ND

Comparative toxic unit for humans (carcinogenic) (HTP-c)	CTUh	ND	ND	ND	ND	ND	ND
Comparative toxic unit for humans (noncarcinogenic) (HTP-nc)	CTUh	ND	ND	ND	ND	ND	ND
Soil quality index (SQP)	SQP	ND	ND	ND	ND	ND	ND

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

DIN 125-1 (140 HV)

Plain washers – Product grade A, up to hardness 140 HV (approx. 250 HV in some references), primarily for hexagon bolts and nuts (Form A/B) (applies per DIN 125-1)

DIN EN ISO 3506-1

Fasteners – Mechanical properties of corrosion-resistant stainless steel fasteners – Part 1: Bolts, screws and studs with specified grades and property classes.

DIN EN ISO 3506-2

Fasteners – Mechanical properties of corrosion-resistant stainless steel fasteners – Part 2: Nuts with specified grades and property classes.

DIN EN ISO 14025

DIN EN /ISO 14025:2011-10/, Environmental labels and declarations - Type III Environment
Declarations - Principles and Procedures

DIN EN ISO 14044

DIN EN ISO 14044:2006-10, Environmental management - Life cycle assessment - Requirements and guidance (ISO 14044:2006); German and English version EN ISO 14044:2006

EN 15804+A2

EN 15804:2019-04+A2, Sustainability of construction works – Environmental product declarations – Basic rules for the product category of construction products.

EN/TR 15941

CEN/TR 15941:2010-03: Sustainability of Buildings – Environmental Product Declarations- M methods for the selection and use of generic data; German version CEN/TR

ETA-11/0354

Injection system Hilti HIT-CT 1 – bonded injection-type anchor for use in non-cracked concrete (M8–M24, rebar 8–25 mm).
Date of issue: 01.09.2020

ETA-11/0493

Injection system Hilti HIT-HY 200-A. Bonded fastener for use in concrete
Date of issue: 10.12.2021

ETA-12/0084

Injection system Hilti HIT-HY 200-R. Bonded fastener for use in concrete
Date of issue: 10.12.2021

ETA-14/0009

Hilti HIT-HY 100. Bonded injection type anchor for use in cracked (threaded rods M10, M12, M16 and rebars Ø10, Ø12,

Ø14, Ø16) and non-cracked concrete (sizes M8 to M30)
Date of issue: 24.09.2023

ETA-15/0882

Injection system Hilti HIT-RE 100. Bonded anchor for use in concrete
Date of issue: 06.09.2023

ETA-16/0143

Injection system Hilti HIT-RE 500 V3. Bonded Fastener with threaded rods, rebar, internally sleeve and Hilti tension anchor HZA for use in concrete
Date of issue: 25.09.2023

ETA-16/0239

Hilti HIT-MM Plus. Injection system for use in masonry
Date of issue: 19.10.2023

ETA-16/0515

HVU2. Bonded fasteners and bonded expansion fasteners for use in concrete
Date of issue: 14.09.2023

ETA-17/0005

HIT-1 (CE). Bonded injection type anchor for use in uncracked concrete
Date of issue: 02.07.2023

ETA-17/0199

Injection system Hilti HIT-MM Plus. Bonded anchor for use in non-cracked concrete
Date of issue: 30.08.2019

ETA-19/0148

Injection system Hilti HIT-RE 100-HC. Bonded fasteners for use in concrete
Date of issue: 13.12.2019

ETA-19/0233

Injection system Hilti HIT-RE 500-HC-Rail. Bonded fasteners for use in concrete
Date of issue: 23.03.2020

ETA-19/0465

Hilti HIT-HY 170 with HAS-U. Bonded fasteners and bonded expansion fasteners for use in concrete
Date of issue: 10.09.2024

ETA-19/0160

Hilti HIT-HY 270 with HAS and HAS-U. Injection system for use in masonry
Date of issue: 30.10.2023

ETA-19/0161



Hilti HIT-HY 170 with HAS and HAS-U. Injection system for use in masonry

Date of issue: 19.10.2023

ETA-19/0194

HIT-RE 500 V3. Glued-in rods for timber connections

Date of issue: 11.09.2019

ETA-19/0601

Injection System Hilti HIT-HY 200-A V3 and HIT-HY 200-R V3.

Bonded fastener and bonded expansion fasteners for use in concrete

Date of issue: 29.01.2024

ETA-20/0834

HIT-RE 500 V4. Glued-in rods for timber connections

Date of issue: 12.11.2023

ETA-20/0541

Injection system Hilti HIT-RE 500 V4. Bonded fastener with threaded rods, rebar, internally threaded sleeve HIS-(R)N and Hilti Tension anchor HZA(-R) for use in concrete for a working life of 50 and 100 years

Date of issue: 09.06.2023

ETA-20/0697

Connector Hilti HCC-U with Injectionmortar Hilti HIT-HY 200-A V3, Hilti HIT-HY 200-R V3, Hilti HIT-RE 500 V3, Hilti HIT-RE 500 V4 and Hilti HIT-HY 170

Date of issue: 28.08.2023

ETA-23/0277

Hilti HAS-U A4, HIT-HY 200-R/-A V3, HVU2, HIT-RE 500 V4, Hilti Verfüllset. Post-installed fasteners in concrete under fatigue cyclic loading

Date of issue: 07.02.2024

IBU 2021

Institut Bauen und Umwelt e.V.: General instructions for the EPD program of the Institut Bauen und Umwelt e.V., Version 2.1, Berlin: Institut Bauen und Umwelt e.V., 2022 www.ibu-epd.com

Product Category Rules Construction Products Part A

Product Category Rules for Construction Products and Services - Calculation Rules for Ecology and Requirements for the Background Report V1.4, Institut Bauen und Umwelt e.V., 04.2024.

Product Category Rules Part B

PCR Screws, 01/06/2023

Regulation (EU) No. 305/2011 (Construction Products Regulation – CPR)

Sphera

LCA for Experts: Holistic balancing

Leinfelden-Echterdingen; Sphera Solution GmbH (Hrsg.)

Product Sustainability Data Search | Sphera (GaBi)

(4.12.2024)



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