

DOCUMENTATIONPACKAGE

FOR BREEAM-NOR V6.1 NEW CONSTRUCTION

TECHNICAL MANUAL – SD5076NOR



DOCUMENTATIONPACKAGE

This documentation package documents how Geberit contribute to the sustainable building certification scheme, BREEAM-NOR, New Construction, V6.1

Geberit AS, Norway has in collaboration with Geberit Nordic composed this report and assembled the documentation for each relevant BREEAM-NOR criterion that BREEAM-NOR assessors need from Geberit to document the contribution to the credits.

Date of first issue:

Last update:

1st of February 2025

1st of February 2025

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DOCUMENTATION PACKAGE

CONTENT AND PURPOSE

This documentation package from Geberit describes the possible contribution to a sustainability certification according to the BREEAM-NOR, New Construction, V6.1 manual. This document is neither a sustainability certification nor a BREEAM-certification of Geberit products, but merely a collected overview of the required documentation and information, which any BREEAM-assessor can use to document the contribution from Geberit products and services.

The Geberit product assortment is wide, and the various products and solutions can contribute to different topics of the BREEAM-NOR certification. This documentation package provides a structured and easily accessible information about the products and services and in which way we believe they can potentially contribute positively to obtaining credits in a BREEAM-NOR assessment.



When choosing Geberit products for your BREEAM-NOR certification, you will not only receive comprehensive documentation but also high-quality, durable products and innovative solutions from a European based manufacturer.

INTRODUCTION TO

BREEAM AND BREEAM-NOR

BREEAM (Building Research Establishment Environmental Assessment Method) is a point based voluntary sustainability certification of buildings. The system, launched in 1990, is the world's longest established method of assessing, rating, and certifying the sustainability of buildings.

The rating levels are unclassified, pass, good, very good, excellent, and outstanding.

BREEAM IS AN ABBREVIATION OF:

BUILDING

RESEARCH

ESTABLISHMENT

ENVIRONMENTAL

ASSESSMENT

METHOD

BREEAM is developed and delivered by BRE Global, which is the National Scheme Operator of BREEAM in the UK. BREEAM is an internationally recognized standard and have locally adapted certifications.

BREEAM-NOR is a Norwegian adapted version, controlled by Grønn Byggallianse. Today BREEAM-NOR is the most widely used green building certification in Norway for new-build and bigger renovations.

When a building is certified according to **BREEAM-NOR**, it shows that the project has qualities beyond the minimum standard of the building regulation and takes in considerations for the environment.

BREEAM-NOR ensures that all the important aspects of sustainability are taken care of, therefore nine categories + innovation as additional category are covered:

- 1. Management (Man)
- 2. Health & Well-being (Hea)
- 3. Energy (Ene)
- 4. Transport (Tra)
- 5. Water (Wat)
- 6. Materials (Mat)
- 7. Waste (Wst)
- 8. Land use and Ecology (LE)
- 9. Pollution (Pol)
- 10. Innovation (Inn)

- → Geberit can contribute to a BREEAM-NOR certification in 5 out of the 9 categories plus potentially the innovation points.
- In the table below, we have marked in which categories we can help with documentation for potential credits. Please note, that some of the credits are not only dependent on one supplier, but here are the categories where we can assist with data and documentation.

OVERVIEW OF TOTAL POTENTIAL CREDITS

	BREEAM-NOR V6.0 ASSESSMENT ISSUES	TOTAL POTENTIAL CREDITS	GEBERIT INFLUENCE
	Man 01 Project brief and design	1-5	1
MANAGEMENT	Man 02 Life cycle cost and service life planning	1-3	
	Man 03 Responsible construction practices	1-7	
	Man 04 Commissioning and handover	1-3	1
	Man 05 Aftercare	1-3	
	Hea 01 Visual comfort	1-7	
	Hea 02 Indoor air quality	1-4	
HEALTH AND	Hea 03 Thermal comfort	1-3	
WELLBEING	Hea 05 Acoustic performance	1-4	1-4
	Hea 06 Safe and healthy surroundings	1-3	
	Hea 08 Private space	1	
	Ene 01 The energy performance of the building	1-12	
	Ene 02 Energy monitoring	1-2	
	Ene 03 External lighting	1	
ENEDOV/	Ene 05 Energy efficient cold storage	1-2	
ENERGY	Ene 06 Energy efficient transportation systems	1-3	
	Ene 07 Energy efficient laboratory systems	1-5	
	Ene 08 Energy efficient equipment	1-2	
	Hea 08 Private space	1	
	Tra 01 Transport assessment and travel plan	1-3	
TRANSPORT	Tra 02 Sustainable transport measures	1-10	
	Wat 01 Water consumption	1-5	1-5
WATER	Wat 02 Water monitoring	1	
	Wat 03 Water leak detection and prevention Wat 04 Water efficient equipment	1-2 1	
	wat 04 water emclent equipment	I	
	Mat 01 Environmental impacts from construction products - LCA and greenhouse gas calculations	1-5	
MATERIALO	Mat 02 Environmental impacts from construction products – Product requirements	1-3	Minimum requirement
MATERIALS	Mat 03 Responsible sourcing of construction products	1-3	
	Mat 05 Designing for durability and climate adaption	1-4	
	Mat 06 Material efficiency and reuse	1-3	1
	Mat 07 Design for disassembly and adaptability	1-3	1-2

OVERVIEW OF TOTAL POTENTIAL CREDITS

	BREEAM-NOR V6.0 ASSESSMENT ISSUES	TOTAL POTENTIAL CREDITS	GEBERIT INFLUENCE
WASTE	Wst 01 Construction site resource management	1-5	1-2
	Wst 03a Operational waste	1	
	Wst 03b Operational waste	1	
	Wst 04 Speculative finishes	1	
	LE 01 Site selection	1-2	
	LE 02 Ecological risks and opportunities	1-2	
	LE 03 Managing impacts on ecology	1-3	
	LE 04 Ecological change and enhancement	1-4	
LAND USE AND ECOLOGY	LE 05 Long term ecological management and maintenance	1-2	
	LE 06 Climate adaptation	1	
	LE 07 Flooding and storm surge	1-2	
	LE 08 Local surface water management	1-3	
	Pol 01 Impact of refrigerants	1-4	
	Pol 02 Local air quality	1-2	
POLLUTION	Pol 04 Reduction of night time light pollution	1	
	Pol 05 Reduction of noise pollution	1	
INNOVATION	Inn01 Innovation	1-10	
	TOTAL POTENTIAL CREDITS WHICH GEBERIT CAN INFLUENCE		16

Contribution to credits in BREEAM-NOR

Geberit contributes directly with documentation to the coloured parts of the scheme above. In addition, Geberit may influence other areas of the assessment issues, with advisory and sharing of knowledge, thus still having an impact in more than the stated potential credits.

Non-standard building types

If your project is not a standard BREEAM-NOR building type category, you may apply for a BREEAM-NOR Bespoke certification. Read more about BREEAM-NOR Bespoke at Grønn Byggallianse: **www.byggalliansen.no**

CRITERIA CONTRIBUTION AND DOCUMENTATION

ISSUE CRITERIA DOCUMENTATION

MANAGEMENT



MAN 01

Project brief and design

MAN 04

Commissioning and handover

Product specific EPDs
User Manuals
Training on-site

HEALTH AND WELL-BEING



HEA 05

Acoustic performance

Sound measures for the acoustician.

WATER



WAT 01

Water consumption

Floor standing WC with 4/2 litre flush
Wall hung WC cisterns with flush volume reduction
Urinals, waterless
Urinals, low water consumption

MATERIALS



MAT 02

Environmental impacts from construction products

MAT 06

Material efficiency and reuse

MAT 07

Design for disassembly and functional adaptability.

EPDs

SVHC-list

Re-use and demounting instruction Geberit SuperTube technology

WASTE



WST 01

Construction site resource management

Re-use and demounting instruction

INNOVATION



INN 01

Innovation

Geberit does not deliver specific documentation for this topic but may still have an indirect impact via innovative solutions which can be implemented as part of the application for innovation points. Reach out to learn more. Contact

BREEAM-NOR MANAGEMENT

MAN 01 - PROJECT BRIFF AND DESIGN

REQUIREMENTS AND DOCUMENTATION

POTENTIAL CREDITS

1

In the sub-criterion of Man 01 – Climate gas calculation for whole building life cycle, Geberit contributes with EPD documentation for relevant products in the LCA calculation. The types of products to be calculated in the LCA calculation are defined by the Future Built quality criteria. Currently, all plastic piping systems should be part of the LCA calculation.

When using product specific EPDs for the project brief and design phase, it is more precise and easier to calculate the post-construction "as-built" review, which is also demanded in the certification.

HERE IS THE DIRECT LINK TO THE RELEVANT EPDS:

Geberit Silent-db20 rør Geberit Silent-db20 fitting

Geberit Silent-Pro rør Geberit Silent-Pro fitting

Geberit PE rør Geberit PE fitting

Geberit Silent-PP rør Geberit Silent-PP fitting

For the remaining topics in Man 01, Geberit does not directly contribute with documentation, but may still have an impact as to assisting the project planner with creation of the project planning. Reach out for advisory at **sales.no@geberit.com**

1-5

MAN 04 - COMMISSIONING AND HANDOVER

In the sub-criterion of Man 04 – Prepare for a good handover, Geberit contributes to providing documentation in the form of user manuals, which makes it easy for the project planner to prepare for a good handover.

1

All our user manuals can be found via this link: Nedlastingssenter | geberit.no

In addition, for the planning of technical training, Geberit does not directly contribute with documentation, but may still have an impact as it is always possible to get training directly from Geberit, including on-site training during installation and handover.

1-3

Reach out for booking of training at sales.no@geberit.com

BREEAM-NOR HEALTH AND WELL-BEING

HEA 05 - ACOUSTIC PERFORMANCE

REQUIREMENTS AND DOCUMENTATION

POTENTIAL CREDITS

In the sub-criterion of Hea 05 – Sound class requirements, Geberit contributes with documentation for pre-assessed sound calculations. In this topic, we help the acoustician to obtain documentation before the final measurements, thus helping the choice of solutions which will bring optimal sound class performance and potential credits.

1 - 4

Here is the link to the sound measurements available for drainage piping systems: Soundbrochure Nordic NO web (geberit.no)

In addition, Geberit is highly qualified to assist the project planner with advice on acoustics, as this is one of Geberit's core technology areas. In our head office in Switzerland we have our own sound laboratory, with acousticians employed to guide our customers in acoustic topics related to our products. Reach out for advisory at sales.no@geberit.com

BREEAM-NOR WATER

WAT 01 - WATER CONSUMPTION

REQUIREMENTS AND DOCUMENTATION

POTENTIAL CREDITS

In Wat 01, Water consumption, Geberit contributes with documentation for products which can help reducing the consumption of potable water for sanitary use. Geberit product categories which have reduced flush volumes are:

1 - 5

WCS

Floor standing WCs in the brand of Porsgrund are all pre-set with at flush volume of 4/2 litres, thus being eligible for an average flush volume in BREEAM-NOR of 3 litres, corresponding to the maximum of 5 credits.

Link to documentation: Gulvstående toaletter (porsgrundbad.no)

Wall hung WCs are flushed via the cistern behind the wall. The Geberit cisterns are all equipped with a flush valve (Type 212), which can be set to lower flush volumes, thus being eligible for an average flush volume in BREEAM-NOR, down to 3 litres, corresponding to the maximum of 5 credits. Link to documentation: geberit-flush-volume-setting-no.pdf

URINALS

Geberit produce waterless urinals which can bring up to 5 credits, as the water flush is zero. Link to documentation: <u>Urinal, drift uten vann (geberit.no)</u>

If a water flushed urinal is wanted in the project, Geberit also supplies urinals with low water consumption down to 1 litre maximum flush volume, corresponding to the maximum of 5 credits.

Link to documentation: <u>Urinaler, spyledrift, uten spylekant (geberit.no)</u>

SENSOR FOR HEALTHCARE BUILDINGS

For healthcare buildings, Geberit offers flushing controls for WCs and urinals activated by sensors. Link to documentation: WCs: For WC-skyllesystem med elektronisk aktivering av skylling Urinals: <u>Urinalstyringer</u>

If you want to learn more about selection of wcs and urinals and their contribution in the BREEAM-NOR certification, reach out for advisory at **sales.no@geberit.com**

BREEAM-NOR MATERIALS

MAT 02 – ENVIRONMENTAL IMPACTS FROM CONSTRUCTION PRODUCTS – PRODUCT REQUIREMENTS

REQUIREMENTS AND DOCUMENTATION

POTENTIAL CREDITS

In the sub-criterion of Mat 02 – Absence of environmental toxins, Geberit contributes with documentation for the SVHC content level in all our products. This part of BREEAM-NOR is not giving any credits, but only a compliance to the certification, thus the documentation is mandatory to have in place.

For our products with EPD, the absence of environmental toxins is described in the EPD document: Bærekraft | geberit.no

The full list of products which contain SVHC is documented here: Nedlastingssenter | geberit.no

In general, Geberit is aiming for lowest possible level of environmental toxins. As an example: Our sanitary ceramics is now 100% free of led (Pb) and zinc oxide (ZnO) since 2024.

In case you have questions regarding SVHC levels, reach out for advisory at ${\bf sales.no@geberit.com}$

No credits available for this sub-criterion.

Compliance with minimum requirement.

MAT 06 - MATERIAL EFFICIENCY AND REUSE

In the sub-criterion of Mat 06 – Mapping for component reuse and implementation, Geberit contributes with documentation for reuse potential and demounting instruction for sanitary ceramics in existing buildings. The documentation includes a full product list of Porsgrund sanitary ceramics, which is highly reusable.

Link to reuse- and demounting instruction: $\underline{\text{Ombruk- og demonteringsmanual.pdf}}$

For the remaining topics in Mat 06, Geberit does not directly contribute with documentation, but may still have an impact we can assist the project planner with choice of solutions for mapping of material efficiency. This includes for instance materials that can be recycled or reused, or products suitable for prefab to reduce material waste.

Reach out for advisory at sales.no@geberit.com

1

1-3

BREEAM-NOR MATERIALS

MAT 07 - DESIGN FOR DISASSEMBLY AND ADAPTABILITY

REQUIREMENTS AND DOCUMENTATION

Reach out for advisory at sales.no@geberit.com

POTENTIAL CREDITS

In the sub-criterion of Mat 07 – Resource inventory, Geberit contributes 1 with documentation for reuse potential and demounting instruction for sanitary ceramics in existing buildings. The documentation includes a full product list of Porsgrund sanitary ceramics, which is highly reusable. Link to reuse- and demounting instruction: Ombruk- og demonteringsmanual.pdf In the sub-criterion of Mat 07 – Design for disassembly and functional adaptability, Geberit contributes with documentation for products which can support a concept design that aim to enable and facilitate functional adaptation. We provide the documentation of piping systems for a multi-storey building, that needs to be built for adaptability to higher flushing needs - for example in case of additional sanitary flushing units added later in the lifecycle of the building. The high performance of Geberit SuperTube, ensures higher performance capacity and functional adaptability without exchanging the drainage piping system. Link to Geberit SuperTube technology: Geberit Silent-Pro SuperTube-avløpssystem | geberit.no For the remaining topics in Mat 07, Geberit does not directly contribute with documentation, 1-3 but may still have an impact as we can assist the project planner with choice of solutions for mapping of material efficiency. This includes for instance materials that can be recycled or reused, or products suitable for prefab in order to reduce material waste.

BREEAM-NOR **WASTE**

WST 01 – CONSTRUCTION SITE RESOURCE MANAGEMENT

REQUIREMENTS AND DOCUMENTATION

POTENTIAL CREDITS

In the sub-criterion of Wst 01 – Waste sorting, re-use and recycling of materials, Geberit contributes with documentation of a reuse- and demounting instruction for sanitary ceramics. The documentation includes a full product list of Porsgrund sanitary ceramics, which is highly reusable. In addition, a full list of SVHC-products is available as documentation.

1-2

Link to reuse- and demounting instruction: Ombruk- og demonteringsmanual.pdf

The full list of products which contain SVHC is documented here: Nedlastingssenter | geberit.no

Reach out for further advisory at sales.no@geberit.com

BREEAM-NOR INNOVATION

INN 01 – NEW TECHNOLOGY PROCESSES AND PRACTICES

REQUIREMENTS AND DOCUMENTATION

POTENTIAL CREDITS

For getting innovation points, Geberit does not directly contribute with documentation, but may still have an impact as Geberit has a long tradition of innovative solutions, which for instance save space, save materials, reduce noise, save energy, or save water in buildings.

1-10

Reach out for further advisory at sales.no@geberit.com

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