



ENV1.2

Local environmental impact



Objective

Our objective is to reduce, avoid or substitute all dangerous or damaging materials, (construction) products or preparations that can adversely affect or cause short, medium or long-term damage to people, flora and fauna.

Benefits



The use of particularly environmentally friendly materials not only makes an important contribution to improving indoor air quality, but also helps limit the contamination risk of a building with regard to pollutants. Only a building elements catalogue, that is complete in terms of the environmental qualities of materials, can provide building owners with extensive information about construction products used in various parts of the building. This information is of key importance for the quality assurance in the building construction, for clarifying deficiencies and finding appropriate ways for eliminating them, simultaneously optimising the costs of maintenance. This provides an important contribution to the value stability of a building.

Contribution to overriding sustainability goals



CONTRIBUTION TO SUSTAINABLE DEVELOPMENT GOALS (SDGS) OF UNITED NATIONS (UN)

CONTRIBUTION TO THE GERMAN SUSTAINABILITY STRATEGY

 Significant			12.1.a	Sustainable consumption
			12.2	Sustainable production
 Moderate	3.4	Reduction of premature death, promotion of good health/well-being	3.2.a	Air pollution
	3.9	Effects of chemicals, air, water and soil contamination	13.1.a	Climate protection
	12.4	Environmentally friendly handling of chemicals and waste		
	13.2	Climate protection measures in guidelines, strategies and planning		



Outlook

The handling and use of environmentally friendly materials is subject to increasingly strict regulatory specifications. Categorisation into quality levels is subject to changes in the long term. In addition beside the standard quality levels (QL), for this international version another quality level Zero (QL0) was developed, which is the minimum requirement for this criterion.

Share of total score

				SHARE ¹	WEIGHTING FACTOR
Office	Education	Residential	Hotel	4.7%	4
Consumer market		Department stores			
Logistics	Production				
Shopping centre				4.5%	4
Assembly buildings				5.0%	4

¹ Variable, building location related factors from the criterion ENV2.2 may influence the share of total score



EVALUATION

The Quality Levels (QL) named in the criteria matrix build upon each other. The quality level achieved is derived from the individual aspect that needs to be given the lowest evaluation. The requirements of a higher quality level in each case incorporate all requirements listed for the lower levels. A maximum of 100 points can be awarded for this criterion.

NO.	INDICATOR	POINTS
1	Environmentally friendly materials	
1.1	<div>Office Education Hotel Consumer market Logistics Production Assembly buildings</div> <ul style="list-style-type: none"> Fulfilment of all requirements in the criteria matrix: Max. 100 <ul style="list-style-type: none"> QL 0 10 QL 1 30 QL 2 50 QL 3 75 QL 4 100 <div>Residential Department stores</div> <ul style="list-style-type: none"> Fulfilment of all requirements in the criteria matrix: Evaluation of the communal areas, building envelope and the living spaces/rental spaces is carried out via 1.1 and 1.2. If the fit-out standard achieved for the living spaces/rental spaces deviates from the standardised fit-out description, this must be evaluated separately via indicator 1.2 (for more information, see IV. Usage-specific description). Max. 50 <ul style="list-style-type: none"> QL 0 5 QL 1 15 QL 2 25 QL 3 35 QL 4 50 <div>Shopping centre</div> <ul style="list-style-type: none"> Fulfilment of all requirements in the criteria matrix: Evaluation of the communal areas and the building envelope. Max. 60 <ul style="list-style-type: none"> QL 0 5 QL 1 15 QL 2 25 QL 3 40 QL 4 60 	
1.2	<div>Residential Department stores</div> <ul style="list-style-type: none"> Fulfilment of all requirements in the criteria matrix in at least 50% of the rental spaces (apartments) in: Max. 50 <ul style="list-style-type: none"> QL 0 5 QL 1 15 QL 2 25 QL 3 40 QL 4 50 	



NO.	INDICATOR	POINTS
	Shopping centre	
	■ Fulfilment of all requirements in the criteria matrix in at least 50% of the rental spaces in (for more information see IV. Usage-specific description):	Max. 40
	QL 0	5
	QL 1	15
	QL 2	25
	QL 3	35
	QL 4	40
1.3	Office Education Hotel Shopping centre Consumer market Logistics Production Residential Department stores Assembly buildings Additional points for all quality levels: Cooling is provided without halogenated/partially halogenated refrigerants	 +10 10



SUSTAINABILITY REPORTING AND SYNERGIES

Sustainability reporting

Appropriate key performance indicators (KPIs) include, in the case of positive evaluation of indicator 2, not using certain refrigerants for the communication or communicating selected relevant emission parameters for construction products used.

NO.	KEY PERFORMANCE INDICATORS (KPIs)	UNIT
KPI 1	No use of halogenated and partially halogenated refrigerants that are persistent by themselves or have persistent degradation products	[yes]
KPI 2	Emission profiles for construction products used, stating carcinogenic volatile organic compounds, formaldehyde and substances with LCI values (tested in accordance with CEN/TS 16516); corresponds to Level(s) indicator 4.1.2	[µg/m³], [-]

Synergies with DGNB system applications

- **DGNB BUILDINGS IN USE:** The application of the criteria matrix can be proven in a procurement guideline for the ongoing maintenance in criterion ENV9.2 "Procurement" from the DGNB scheme for buildings in use
- **DGNB RENOVATED BUILDINGS:** High synergies with criterion ENV1.2 from the scheme for renovated buildings.
- **DGNB INTERIORS:** High synergies with criterion ENV1.2 from the scheme for interiors.



APPENDIX A – DETAILED DESCRIPTION

I. Relevance

Certain substances, construction products and preparations are dangerous to the soil, air, groundwater and surface water and to people, flora and fauna. This concerns their entire life cycle – from manufacturing, processing on the construction site and use in the existing building to their disposal (dismantling, recycling, disposal in landfill). The local risks are evaluated on the basis of substances and products, as the toxicological impact categories for the environment and humans have not yet been recorded in the life cycle assessment due to lack of recording and evaluation processes.

II. Additional explanation

In the DGNB certification system, high-risk material and substance groups are investigated and evaluated individually and on the basis of products. The following material groups, among others, are currently taken into account (as products or as ingredients in compositions):

- Halogenated and partially halogenated refrigerants
- Halogenated and partially halogenated propellants
- Heavy metals
- Substances that fall under the Biocidal Products Directive (528/2012/EC)²
- Substances that fall under the Persistent Organic Pollutants (POPs) Regulation³
- Hazardous substances in accordance with the CLP Regulation (1272/2008/EC)⁴
- Organic solvents and plasticisers
- Substances of very high concern (SVHC in accordance with the European Chemicals Regulation (REACH) (1907/2006/EC))⁵

Chemicals/substances that are particularly dangerous in terms of the following toxic end points are classified as being of very high concern:

- Carcinogenic, mutagenic and toxic to reproduction (CMR),
- Persistent, bioaccumulating and toxic (PBT)⁶,
- Very persistent and very bioaccumulating (vPvB) or
- Of similar concern (e.g. endocrine disruptors).

In accordance with the European Chemicals Regulation (REACH), suppliers must inform their customers if a product (e.g. an insulation tube for building technology) contains a substance listed in the candidate list in a concentration of more than 0.1% (w/w). This obligation is described in Article 33 of the European Chemicals Regulation (REACH) and applies once a substance is included in the candidate list⁷

² Information on biocides: <https://echa.europa.eu/information-on-chemicals/biocidal-active-substances>

³ Regulation (EU) 2019/1021 on POPs: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1021&from=EN> for non-EU area internationally ratified Stockholm convention <http://www.pops.int/TheConvention/Overview/TextoftheConvention/tabid/2232/Default.aspx>

⁴ Guidance on labelling and packaging in accordance with Regulation:

https://echa.europa.eu/documents/10162/23036412/clp_labelling_en.pdf/89628d94-573a-4024-86cc-0b4052a74d65

⁵ Candidate List of substances of very high concern: <https://echa.europa.eu/candidate-list-table>

⁶ Persistence, bioaccumulation and toxicity assessment: <https://echa.europa.eu/pbt>



The substances and components that must be considered are specified and explained in the criteria matrix (Appendix 1).

For the requirement for limiting emissions of volatile organic compounds from products or their risk potentials during use, overlaps with regard to the VOC content of the product and the resulting release of VOCs by the product are derived. In criterion ENV 1.2 "Local environmental impact", the VOC content of the product is primarily evaluated, and the release of VOCs is only evaluated where there are no industry regulations regarding the VOC content (e.g. sealants). The quantitative emissions of volatile substance into the interior are considered in criterion SOC1.2 "Indoor air quality".

The CE marking symbolizes the conformity of the product with the applicable requirements that the European Community places on the manufacturer. With the CE marking, it is declared, from responsible person/organisation, that the product complies with all applicable EU regulations and that a corresponding conformity assessment procedure has been carried out.

Planning procedure:

From an early planning phase onwards, certain materials and components must be considered in terms of critical substances (see Appendix 1) and, where appropriate, suitable alternative designs must be assessed. By making informed choices when selecting construction materials, it is possible to mostly avoid using the hazardous substances and products specified in the criteria matrix without restricting the creative and functional planning process.

III. Method

Criterion ENV1.2 contains specific requirements for a wide range of construction materials. The requirements stated in Appendix 1 must be observed for all materials and components specifically listed in the table. These must be assessed with regard to all requirements listed in Appendix 1, and it may be the case that multiple rows are relevant to individual materials and components. The complete layer structure of all components must be specified on the basis of a building elements catalogue (see implementation example, Appendix 2). Auxiliary materials such as adhesive, primers, etc. must be added. Verifiable proof must be produced in accordance with the criteria matrix for all requirements that are to be verified at the target quality level (see Appendix 1, column: Type of documentation; requirement for verification of the individual aspects).

As a result of this, the following surfaces must be considered:

- Ground structures including foundations
- External wall structures
- Internal wall structures
- Floor and ceiling structures
- Roof structures
- Underground garages (are considered separately)

The following requirements for this criterion must be considered, verified and complied for the prefabricated construction materials/products listed below:

- Coatings applied at the factory for windows, façade components, doors, frames, radiators, partitions, ceiling systems, cooling pipes, etc.: In accordance with the objective (prevention of VOC emissions into the environment), compliance with the product limit values in the criteria matrix is considered to be a valid form of proof. Alternatively, compliance with the objective can also be ensured by the coater/operator of exhaust air post-treatment systems by proving compliance with statutory limit values in accordance with Directive 1999/13/EU on the basis of current, officially accepted monitoring logs.



- Coatings applied on the construction site: In accordance with the objective (prevention of VOC emissions into the environment), only compliance with the product limit values in the criteria matrix is considered to be a valid form of proof.
- Synthetic insulating materials with regard to halogenated propellants
- Aluminium and stainless steel components with regard to treatment with Cr(VI) compounds
- Refrigerants in cooling systems
- Plastic windows, floor coverings and wall coverings with regard to lead, cadmium and tin stabilisers
- Plastics, insulating materials, functional coatings, sealants, rubber products etc. with regard to substances of very high concern (SVHC in accordance with the European Chemicals Regulation (REACH))
- Floor coverings with regard to hazardous substances and emissions
 - Load-bearing components made of wood such as laminated timber trusses, pillars/cross bars in support structures and window frames with regard to biocidal substances.
- Coatings applied in the factory to load-bearing and non-load-bearing structural elements of the wooden structure such as lacquers, varnishes, oils and waxes with regard to VOC.
- Coatings applied in the factory to wood and wooden materials such as façade and acoustic elements, doors, coverings on ceilings, floors and walls, parquet, staircases and windowsills, etc. with regard to VOC. Alternatively, compliance with the objective can also be ensured by the coater/operator of exhaust air post-treatment systems by proving compliance with statutory limit values in accordance with Directive 1999/13/EU on the basis of current, officially accepted monitoring logs.

It should be noted here that in the criteria matrix (Appendix 1) are only requirements listed that go beyond the statutory material standards. Fulfilment of all national specific statutory requirements will always be considered as prerequisites by any building project claiming compliance to this document e.g. fulfilment of European Chemicals Regulation (REACH) by the manufacturers from EU member countries.

The qualitative evaluation is carried out based on quality levels. These are based on both the cost and level of difficulty of practical implementation and the environmental significance of substituting a material. All materials and aspects considered in the criteria matrix must be verified with regard to the target quality level. Only verified qualities can be taken into account and evaluated in the conformity check. The quality level achieved is derived from the individual aspect that needs to be given the lowest evaluation. The requirements of a higher quality level in each case incorporate all requirements listed for the lower levels.

The form of verification used is also crucial for determining the quality level. The verification must be implemented in the form of a building elements catalogue that includes the environmental qualities of materials.

The DGNB has learned over many years of experience that the material qualities required to fulfil **quality level 3 or 4** can only be successfully ensured if the materials relevant for fulfilling the quality level are tested and approved on the construction site prior to their use. **Quality level 3 or 4** can therefore only be achieved if the corresponding **material monitoring logs** are presented. Material inspection and creation of the logs can be delegated to qualified third parties (auditors, construction ecologists).

Material inspections on the construction site

An approval list must be regularly updated by the qualified institution responsible for review and approval and must be made available to the construction managers/property monitoring specialists for material inspection on the construction site. The construction managers/property monitoring specialists must monitor the correctness of the materials used by the companies involved in the construction by means of regular target/achieved comparisons and create logs of the results. An appropriate and regular frequency is considered to be one that ensures

- that the work of all contractors involved in all parts of the construction process involving relevant materials is checked soon after it begins (i.e. before 5% of the work that is critical for meeting objectives is completed), and
- that the intervals between inspections are reduced once fit-out work is started.

Information regarding dealing with incorrect use is provided in Appendix 5.

Certification of the construction site inspections is not required in order to achieve quality level 0, 1 or 2. It can therefore be assumed that it is not necessary to carry out construction site inspections for **quality level 0, 1 or 2** if it is only necessary to comply with the limit value in criterion SOC1.2 Indoor air quality.



IV. Usage-specific description

Information regarding indicator 1.1:

In the following schemes, separate evaluation of the rental spaces is possible via indicator 1.2. This corresponds to the methodology for indicator 1.1, which is to be used to evaluate the building envelope and any existing communal areas.

Residential Department stores:

Separate evaluation of the rental spaces is possible via indicator 1.2. This corresponds to the methodology for indicator 1.1, which is to be used to evaluate the building envelope and communal areas.

If the fit-out standard that has been implemented for the rental/living spaces deviates from the standardised fit-out description, these must be considered via indicator 1.2. Declarations of obligation and binding fit-out descriptions from tenants and confirmations of implementation of the quality level in accordance with the DGNB criteria matrix must be verified.

For department store with a tenant, a separate evaluation does not have to be carried out.

If no separate analysis is carried out, the points for indicators 1.1 and 1.2 can be awarded accordingly. In this case, a separate list is not required.

The quality level of the rental spaces can in principle only be assessed higher than the quality level that has been achieved for the communal areas if documentation for the rental/living spaces in accordance with the requirements specified for verification in the criterion and Appendix 2 is available and has been implemented successfully.

Shopping centre

Communal spaces and building envelopes are evaluated via indicator 1.1, while rental spaces are evaluated via indicator 1.2.

Communal areas and building envelope:

Communal areas include all non-rental spaces. These include spaces such as escape routes, parking areas, communal WC areas, office spaces and communal social areas. All non-retail spaces such as storage spaces that are fitted out by the landlord must be included in the communal spaces. The building envelope is also included.

Information regarding indicator 1.2:

Rental spaces:

If it can be verified that the relevant tenants have undertaken to implement the quality levels of the criteria matrix in at least 50% of the rental space, this is positively evaluated. This can be achieved, for example, via an obligation on the part of the tenants in the rental contract.

The quality level of the rental spaces can in principle only be assessed higher than the quality level that has been achieved for the communal areas if documentation for the rental/living spaces in accordance with the requirements specified for verification in the criterion and Appendix 2 is available and has been implemented successfully.

Information regarding indicator 1.3:

In order to provide an additional market incentive, implementation of cooling without halogenated/partially halogenated refrigerants is rewarded with additional checklist points. If no refrigerants are used, no additional checklist points can be awarded. The objective, in particular, is preventing the use of halogenated refrigerants or propellants, unless it has been proven that they and their degradation products do not accumulate in the environment and do not have persistent degradation products that can pollute (accumulate in) natural basins or have harmful effects there.



Assembly buildings

In case of existence of the individual/separated responsibilities between the parties e.g. owner: common areas and building envelope / tenant: rental areas, evaluation of the criterion for the scheme **Assembly buildings** can be done similarly to the scheme **Shopping centre**, where the "General areas and building envelope" are assessed in accordance to the indicator 1.1 and the "rental areas" assessed in accordance the indicator 1.2.



APPENDIX B – DOCUMENTATION

I. Required documentation

A range of different forms of documentation is listed below. The documentation submitted must comprehensively and clearly demonstrate compliance with the requirements for the target evaluation of the individual indicators. The components/construction materials and areas listed in the criteria matrix (Appendix 1) must be considered:

- Complete declaration and verification of relevant components/construction materials applied in points or lines (e.g. sealant) using the documentation required in the criteria matrix. In principle, the verification process should deal with all consecutive numbers in the criteria matrix. Irrelevant aspects of the criteria matrix should be explicitly identified as irrelevant, and technical exceptions should be explicitly marked as exceptions and justified.
- Declaration and verification of relevant components/construction materials applied across surfaces in the form of a building elements catalogue that includes the environmental qualities of materials in accordance with Appendix 2 is obligatory in all quality levels (QL). Verification can also be submitted in a different form, as long as this clearly demonstrates the installation site (location/component/layer structure) of all materials considered in "Appendix 1 – Criteria matrix" to an equivalent extent as a building elements catalogue (in accordance with Appendix 2) and covers all components in the life cycle assessment with identical component designation and area assignment (due to traceability via the conformity check).
- The materials, products and elements listed in the documentation of criterion ENV1.2 must contain the following information as a minimum:
 - Construction product
 - Manufacturer
 - Area information (for materials applied across surfaces)
 - Description of the individual layers (see implementation example in Appendix 2: Building elements catalogue)
- Tenant fit out obligations (if required in the scheme)
- Construction site logs for the material inspections (obligatory for quality level 3 and 4)
- Target/achieved comparison in addition to the approval list (obligatory for quality level 3 and 4)
- Notification of defects/notification that the building is free from defects in accordance with Appendix 5 (in the event of incorrect use)

Exceptions for the verification process:

- **Quality levels 0 and 1:**

No exceptions available in the **QL0** and **QL1**, i.e., all requirements listed in the matrix for these quality levels must be fulfilled.
- **Quality level 2:**

For verification of quality level 2, two of the criteria (row of the criteria matrix) can be ignored without impacting the maximum evaluation points. Any further exception of the criteria (row of the criteria matrix) will lead to subtraction of five points (-5 points).
The ignored criterion in the criteria matrix must fulfil the requirements of the **QL1** as a minimum.
- **Quality level 3:**

For verification of quality level 3, three of the criteria (row of the criteria matrix) can be ignored without impacting the maximum evaluation points. Any further exception of the criteria (row of the criteria matrix) will lead to subtraction of five points (-5 points).
The ignored criterion in the criteria matrix must fulfil the requirements of the **QL1** as a minimum.



■ **Quality level 4:**

For verification of quality level 4, a total of three of the criteria (rows of the criteria matrix) can be ignored without impacting the maximum evaluation points. Any further exception of the criteria (row of the criteria matrix) will lead to subtraction of five points (-5 points).

The ignored criteria in the criteria matrix must each fulfil the requirements of the **QL1** as a minimum.

■ **Cut-off criteria:**

The verification can be ignored for max. 5% of the GFA(S) in accordance with [T&D_04], but only if explicitly mentioned; This applies regardless of which building areas the product/material is used on (see criteria matrix Appendix 1: "Scope of application and verification").

■ **Example of the process:**

- Building with a GFA(S) of 50,000 m² (incl. areas below the ground floor, such as underground garages)
- Example result:
5% GFA(S) = 2500 m²
- Application: The verification of the criteria marked in the criteria matrix with this exception may exclude up to 2,500 m² area from the documentation. The location (walls, ceilings, floors, etc.) of the materials/products is not relevant here.

■ **Technical and functional exceptions⁸:**

If one of the specified product requirements cannot be implemented for technical or functional reasons (i.e. due to the absence of a functionally equivalent product or a construction alternative that meets the requirements), exceptions from the requirements are permitted. Any deviation from the requirements must be documented and justified, specifying the product, the technical application and the quantity used. Product exceptions for purely aesthetic reasons are not covered by the exemption. Possible forms of documentation include, for example, a current confirmation from at least three market-relevant manufacturers that no product that is suitable for the intended quality level is available (see Appendix 3), or proof that use of a suitable product was not technically possible for reasons attributable to "force majeure" (weather conditions, natural circumstances such as water under pressure in the construction site subsoil). Verification for a technical exception can only pertain to a single quality level and does not constitute an exemption from the requirements that may apply in the quality levels below it. If the requirement of a lower quality level cannot be met for technical reasons, this must be consistently justified on the basis of the three manufacturer confirmations presented for the technical exception.

■ **Data basis:**

In principle, the following can be used as a data basis:

- Technical information
- Safety data sheets (SDS)
- Environmental Product Declarations of types I and III and manufacturer declarations regarding ingredients and recipe components
- Manufacturer declaration
- SVHC declaration by manufacturers of products (cf. Appendix 4)

The most suitable sources for the material qualities that are to be queried within the scope of criterion ENV1.2 are normally:

- VOC content of paints/lacquers: Technical information, safety data sheets, labels (declaration of the VOC content in accordance with Directive 2004/42/EC); specified in g/l
- VOC content of other products: Manufacturer declaration
- SVHC in preparations: Safety data sheet

⁸ Not technical exception for QL 0 is possible



- SVHC in products: Technical information, manufacturer data sheets (obligation on the part of the manufacturer)
- Individual substances (heavy metals, etc.): Manufacturer declaration (see criteria matrix in Appendix 1; column: "Type of documentation/requirement for verification of individual aspects")

■ **Validity of the data basis for verification:**

The following information is required for verification:

- EC safety data sheets in accordance with EC 1907/2006.
- Declarations of SVHC in products in accordance with Annex XIV EC 1907/2006 in the most recent applicable version at the publication date of this DGNB version.
- Declarations of substances in the SVHC candidate list in products in accordance with the most recent applicable version at the publication date of this DGNB version.

This means that the documentation that is produced must be created on the basis of the data basis or substance lists (e.g. SVHC) available at the time of publication of this version. This is only ensured if currently valid safety data sheets, technical data sheets and manufacturer declarations that comply with legislation regarding chemicals are used. Documentation published at a later date can be used for verification.



APPENDIX C – LITERATURE

I. Version

Change log based on version 2020

PAGE	EXPLANATION	DATE
all	General and evaluation: scheme “Assembly buildings” has been added	16.09.2021
126	Note has been added regarding the variability of the total score	16.09.2021
132	Additional explanation: definition of the CE marking added	16.09.2021
135	Usage-specific description: optional evaluation rule for the scheme “Assembly buildings” has been added	16.09.2021
All	Appendix 1: introduction of the PCB restriction and CE marking for paints, resins, sealants for QL0 (min. requirement for this criterion).	16.09.2021
144	Line #19: “cut off” rule has been introduced, relevant only if coated area >10 m²	16.09.2021
145	Line #25: no use of Tar / Tar product has been added for QL0	16.09.2021
148	Lines #47 and 48: has been added (Formaldehyde for wooden products)	16.09.2021
148	Note regarding the Taxonomy regulation for the Lines #47/48 has been added	
139	Exception rule for the QL0 and 1 has been updated	


II. Literature


Fundamental sources chosen from the available lists of substances and material data:


- CLP Regulation 1272/2008/EC including alignment regulations*
- European Chemicals Regulation (REACH) (EC 1907/2006) *
- Biocidal Products Directive 98/8/EC *
- Independently verified declarations, such as Environmental Product Declarations (EPD)
- Certifications developed within industries
- EC (2010): Consolidated list of substances that are no longer allowed to be sold, published and continuously updated by the European Commission
- SVHC – Substances of Very High Concern, also known as the REACH candidate list:
(<http://echa.europa.eu/web/guest/candidate-list-table>)
- Sustainable Development Goals icons, United Nations/globalgoals.org
- REGULATION (EC) No 850/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004
- Guidance on labelling and packaging in accordance with Regulation (EC) No 1272/2008
- ECHA - Persistence, bioaccumulation and toxicity assessment: <https://echa.europa.eu/pbt>
- Implementation and review of DIRECTIVE 2004/42/EC, final report, 10 Nov. 2009
- Cadmium in general and copper based paints, ECHA report, 19 Nov. 2012
- ISO 12944 an international standard on corrosion protection of steel structures by protective paint systems, 2018
- Blue Angel – the German eco label, basic award criteria, edition Feb. 2011
- Annex XVII to REACH on: Lead and its compounds in articles, ECHA, Entry 63 (paragraphs 7 to 10)
- The EU-GHS Hazard statements, REACH Compliance GmbH





*For all statutory lists and material information, the currently valid version at the time the building application is submitted must be referred to. For statutory provisions, the transitional periods for placing on the market and use apply in each case.


DGNB System – New buildings criteria set VERSION 2020 INTERNATIONAL												Environmental quality ENV1.2 / LOCAL ENVIRONMENTAL IMPACT APPENDIX						
No.	RELEVANT COMPONENTS/ CONSTRUCTION MA- TERIALS/ SURFACES	SCOPE	SUBSTANC- ES/ASPECTS CONSIDERED	REFERENCE STANDARD	QUALITY LEVEL 0	QUALITY LEVEL 1	QUALITY LEVEL 2	QUALITY LEVEL 3	QUALITY LEVEL 4	TYPE OF DOCUMENTATION	SCOPE OF AP- PLICATION AND VERIFICATION	NOTES RE- GARDING DEFINI- TIONS/EXPLAN- ATIONS/ FOOTNOTES	FOCUS OF IMPACT OF THE SUBSTANCES/ASPECTS CONSID- ERED OVER THE INDIVIDUAL STAGES IN THE LIFE OF A BUILD- ING (MODULES IN ACCORDANCE WITH DIN EN 15978)					APPLICA- TION
	Where specifically does this apply?	Product type	Explanation	Definition	Limit value 10 points	Sub-Reference 30 points (verification via building elements catalogue)	Reference 50 points (verification via building elements catalogue)	Sub-target 75 points (verification via building elements catalogue)	Target value 100 points (verification via building elements catalogue)	Requirement for verification of the individual aspects (only documentation containing values that are to be verified should be submitted)	The requirement applies to the following components		Raw materials extraction (A1)	Production of the product (A3)	Construc- tion of the building (A5)	Opera- tion/use of the building (B1)	Dismantling of the building (C1-C4 and D)	Typical HOAI phase of imple- mentation (German fee struc- ture for architects and engi- neers)
General information: 1) For all standards, references, test seals, etc. listed below, legally valid proof of equivalence with regard to the substance or aspect considered (see column 4) will be accepted. This legally valid proof can be provided by the manufacturer or the authority responsible for awarding the test seal. 2) The requirements of the specified "reference standards" (see column 5) generally apply to the statutory requirements that are predominantly shown in quality level 0 and 1. Requirements outside of this do not always refer to the reference standard. The requirements of a higher quality level in each case incorporate all requirements listed for the lower levels; higher quality levels (QL) may require additional requirements and quality standards. The QL0 is an absolute min. requirement for this criterion. <u>Stockholm POP Convention</u> (restrictions of substances listed under the Annex A, B and C) must be considered as the <u>mandatory worldwide requirement</u>.												Legally valid proof	Reference to the DGNB criterion					
												ENV 1.3 "Sustaina- ble re- source extraction"				SOC 1.2 "Indoor air quality"	TEC 1.6 "Ease of recovery and recy- cling"	
1	Coatings on non-mineral sub-surfaces: Metals, wood, plastics (Factory and building site)	This refers to deco- rative liquid coating materials: Paints/varnishes with primer coats. Effect coatings (such as metallic paints) are an exception to this	VOC/ heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead and cadmium compounds, and no use of PCBs (polychlorinated biphenyl) or CE marking	< 300 g/l – (Category D - Sol- vent-borne coatings (SB) in accordance with Directive 2004/42/EC)	< 130 g/l – (Water-borne coat- ings (WB))Cat. D in accordance with Directive 1004/42/EC)	< 100 g/l	< 100 g/l	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate and/or reference product labels in the DGNB System: https://www.dgnb- sys- tem.de/de/system/lab elanerkennung/	All relevant components and construction prod- ucts	Please note: Coatings applied at the factory	Risk mini- misation in solvent manufac- turing			Indoor air hygiene		Work stage 5–9
2	Coatings on predominant- ly mineral interior sub- surfaces as well as on wallpaper, non-woven materials, plasterboard, etc. Floor areas with special resistance requirements (such as OS (surface protection) systems) and traffic routes such as underground garages and access roads are not taken into account	This refers to decorative paints, primers, decorative fillers (incl. Q-filler) and deep primer, floor coatings with no special resistance requirements, concrete glazes	VOC/SVOC/ heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead and cadmium compounds and no use of PCBs (polychlorinated biphenyl) or CE marking	In accordance with the requirements for water-borne (WB) products in accord- ance with the Di- rective 2004/42/EC (Appendix II)	< 30 g/l	- Solvent-free (≤ 0.7 g/l) and - plasticiser-free (≤ 0.7 g/l)	- Solvent-free (≤ 0.7 g/l) and - plasticiser-free (≤ 0.7 g/l)	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate and/or reference product labels in the DGNB System: https://www.dgnb- sys- tem.de/de/system/lab elanerkennung/	All relevant components and construction prod- ucts. For max. 5% of the GFA(S).					Indoor air hygiene		Work stage 5–9
3	Coatings on predominant- ly mineral interior sub- surfaces such as con- crete, masonry, mortar and filler (e.g. concrete filler). Floor areas with special resistance re- quirements (such as OS (surface protection) systems) and traffic routes such as under- ground garages and access roads, as well as floor screed intended for use without additional coverings and decorative screeds are not taken into account.	This refers to dust- binding coatings and primer coats such as the 'Bet- onkontakt' or 'Aufbrennsperre' products	VOC/ heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead and cadmium compounds and no use of PCBs (polychlorinated biphenyl) or CE marking	< 30 g/l	< 30 g/l	< 10 g/l	< 5 g/l	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate	All relevant components and construction prod- ucts. For max. 5% of the GFA(S).					Interior air hygiene		Work stage 5–9
4	Wall and ceiling linings	Wallpaper paste	VOC	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2		- Powder products or - solvent-free dispersion adhesives (≤ 0.7 g/l)	- Powder products or - solvent-free dispersion adhesives (≤ 0.7 g/l)	- Powder products or - solvent-free dispersion adhesives (≤ 0.7 g/l)	- Powder products or - solvent-free (≤ 0.7 g/l) and plasticiser-free (≤ 0.7 g/l)	Technical data sheet and/or SDS	All relevant components and construction prod- ucts					Indoor air hygiene		Work stage 5–9
5	Coating materials for exterior mineral surfaces such as concrete, masonry, mineral mortar and filler, plaster, ETICS, wallpaper (façade wallpaper), plasterboard, etc. © DGNB GmbH	Currently, decorative paints and dispersion insulation adhesive are taken into ac- count	VOC/ heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead and cadmium compounds and no use of PCBs (polychlorinated biphenyl) or CE marking	< 40 g/l	< 40 g/l	< 40 g/l	< 40 g/l	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate	All relevant components and construction prod- ucts							Work stage 5–9

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No.	RELEVANT COMPONENTS/ CONSTRUCTION MATERIALS/ SURFACES	SCOPE	SUBSTANCES/ASPECTS CONSIDERED	REFERENCE STANDARD	QUALITY LEVEL 0	QUALITY LEVEL 1	QUALITY LEVEL 2	QUALITY LEVEL 3	QUALITY LEVEL 4	TYPE OF DOCUMENTATION	SCOPE OF AP- PLICATION AND VERIFICATION	NOTES RE- GARDING DEFINI- TIONS/EXPLAN- ATIONS/ FOOTNOTES	FOCUS OF IMPACT OF THE SUBSTANCES/ASPECTS CONSID- ERED OVER THE INDIVIDUAL STAGES IN THE LIFE OF A BUILD- ING (MODULES IN ACCORDANCE WITH DIN EN 15978)					APPLICA- TION
6	Floor coverings (Factory)	Textile floor cover- ings	VOC/ hazardous substances	Stockholm POP Convention and SVHC from the REACH candidate list as well as Biocidal Products according 528/2012/EC	SVHC ≤ 0.1%	< 250 µg/m³ after 3 days or < 100 µg/m³ after 28 days and SVHC ≤ 0.1% and biocidal products only in accordance with 528/2012/EC	< 250 µg/m³ after 3 days or < 100 µg/m³ after 28 days and SVHC ≤ 0.1% and biocidal products only in accordance with 528/2012/EC	< 250 µg/m³ after 3 days or < 100 µg/m³ after 28 days and SVHC ≤ 0.1% and biocidal products only in accordance with 528/2012/EC	< 250 µg/m³ after 3 days or < 100 µg/m³ after 28 days and SVHC ≤ 0.1% and biocidal products only in accordance with 528/2012/EC	Technical data sheet and/or Documentation of emissions according to EN ISO 16000-28 and/or reference product labels in the DGNB System: https://www.dgnb-sys-tem.de/de/system/lab-elanerkennung/	All floor coverings				Indoor air hygiene	Prevention of risk materials and impuri- ties in recycling	Work stage 5–9	
7	Floor coverings (Factory)	Resilient floor coverings	VOC/SVOC/ heavy metals	REACH, SVHC / Chlorinated paraffins (incl. long chain CPs) Stockholm POP Convention	No use of lead and cadmium compounds	Documentation of emissions	Documentation of emissions and < 0.1% chlorinated paraffins	Documentation of emissions and < 0.1% chlorinated paraffins and ≤ 0.1% phthalates that are toxic to reproduction (= SVHC)	< 1000 µg/m³ after 3 days or < 300 µg/m³ after 28 days and CPs < 0.1% and SVHC ≤ 0.1%	Technical data sheet and/or manufacturer declara- tion and additionally, for QL 4: Documentation of emissions according to EN ISO 16000-9/ EN 16516 and/or reference product labels in the DGNB System: https://www.dgnb-sys-tem.de/de/system/lab-elanerkennung/	All floor coverings	Documentation of emissions Chlorinated paraffins				Indoor air hygiene	Prevention of risk materials and impuri- ties in recycling	Work stage 5–9
8	Primers, precoats, joint mortars, fillers and adhesives under wall and floor coverings (e.g. tiles, carpets, par- quet, resilient floor cover- ings – with the exception of wallpaper)	All installation mate- rials, auxiliary materials for installing surfaces (wall and floor)	VOC/ hazardous substances	Solvent: Boiling point (b.p.) ≤ 200 °C Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%) Epoxy resin products (solvent content ≤ 10%)	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%) and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%) and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%) and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate according to EN ISO 16000-1/9 /EN 16516 and/or reference product labels in the DGNB System https://www.dgnb-sys-tem.de/de/system/lab-elanerkennung/	All relevant components and construction prod- ucts				Indoor air hygiene		Work stage 5–9	
9	Barrier coatings, resin screeds, seals under tiles	Auxiliary materials for installation	VOC/ hazardous substances	Solvent: Boiling point (b.p.) ≤ 200 °C Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%)	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%)	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%) and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days	Solvent free products (solvent content ≤ 0.5%) Exception: Epoxy resin products (solvent content ≤ 10%) and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate according to EN ISO 16000-1/ EN 16516 and/or reference product labels in the DGNB System https://www.dgnb-sys-tem.de/de/system/lab-elanerkennung/	All relevant compo- nents and construction prod- ucts. For max. 5% of the GFA(S, no documentation is required.				Indoor air hygiene		Work stage 5–9	
10	Natural stone floorings	Impregnations in the interior that do not form films (e.g. natural stone im- pregnations, sand- stone strengthener)	VOC	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2		Free of aromatic substances (< 1%)	Free of aromatic substances (< 1%)	Free of aromatic substances (< 1%)	Solvent content < 5%, not subject to labelling requirements	Technical data sheet and/or SDS and/or manufacturer declara- tion – in special cases (type of natural stone), a technical exception may be justifiable	All relevant components and construction prod- ucts					Risk mini- misation in solvent manufac- turing		Work stage 5–9


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No.	RELEVANT COMPONENTS/ CONSTRUCTION MA- TERIALS/ SURFACES	SCOPE	SUBSTANC- ES/ASPECTS CONSIDERED	REFERENCE STANDARD	QUALITY LEVEL 0	QUALITY LEVEL 1	QUALITY LEVEL 2	QUALITY LEVEL 3	QUALITY LEVEL 4	TYPE OF DOCUMENTATION	SCOPE OF AP- PLICATION AND VERIFICATION	NOTES RE- GARDING DEFINI- TIONS/EXPLAN- ATIONS/ FOOTNOTES	FOCUS OF IMPACT OF THE SUBSTANCES/ASPECTS CONSID- ERED OVER THE INDIVIDUAL STAGES IN THE LIFE OF A BUILD- ING (MODULES IN ACCORDANCE WITH DIN EN 15978)					APPLICA- TION
11	Skirting boards, door rails, support adhesive (raised or hollow floors); The areas of glass con- struction, façade and fire safety are not taken into account here	Sealing compounds, sealants and adhesives for attach- ing components in points and lines in the interior. This refers to PU adhesive and silane modified polymers (SMP)	VOC / hazard- ous substances	Solvent: Boiling point (b.p.) ≤ 200 ° Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	Polyurethane resin products, solvent content ≤ 10%	Polyurethane resin products, solvent content ≤ 10%	Polyurethane resin products, solvent content ≤ 10% and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days	Polyurethane resin products, solvent content ≤ 10% and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate according to EN ISO 16000-1/ EN 16516 and/or reference product labels in the DGNB System: https://www.dgnb-sys-tem.de/de/system/lab-elanerkennung/	All relevant components and construction prod- ucts	GISCODE PU10 GISCODE RS10	Risk mini- misation in solvent manufac- turing			Indoor air hygiene	Work stage 5–9	
12	Adhesive bonds on small joints under mechanical stress; the areas of glass construc- tion, façade and fire safety are not taken into account here	Sealing compounds, sealants and adhe- sives for attaching components in points and lines in the interior and attaching ventilation ducts inside the building. This refers to Acrylic seal- ants/adhesives, silicone sealants and SMP (hybrid seal- ants)	Chlorinated paraffins, sol- vents, HC / hazardous substances	Chlorinated paraf- fins/solvents ((incl. long chain CPs)), hydrocarbon plasti- cisers Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking		No Chlorinated paraffins according to SDS	Chlorinated paraffins < 0.1%	Chlorinated paraffins < 0.1% and HC plasticisers < 0.1%	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate	All relevant compo- nents and construc- tion products in the standard applica- tions of sealing joints (tiles, natural stone), connection joints (drywall construc- tion, paintwork, doors) and sealants for indoor air ventilation installations (RLT)	Chlorinated paraffins	Risk mini- misation in solvent manufac- turing			Interior air hygiene and prevention of hazard- ous sub- stances	Work stage 5–9	
13	Installation adhesives and sealants on the façade, windows and external doors (applied on the construction site)	Adhesive for establishing airtight- ness on the internal and external façade: e.g. PU, PU hybrid, MS polymer, SMP, etc.	Halogenated propellants, chlorinated paraffins , emissions and hazardous substances	Chlorinated paraffins (incl. long chain CPs)/ Solvent: Boiling point (b.p.) ≤ 200 ° Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	< 0.1% halogenated propellants	< 0.1% halogenated propellants	- Chlorinated paraf- fins < 0,1 % and halogenated propellants < 0.1% and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days or - VOC < 1 %	- Chlorinated paraf- fins < 0,1 % and halogenated propellants < 0.1% and ≤ 1000 µg/m³ after 3 days or ≤ 100 µg/m³ after 28 days or - VOC < 1 %	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate according to EN ISO 16000-1/ EN 16516 and/or reference product labels in the DGNB System: https://www.dgnb-sys-tem.de/de/system/lab-elanerkennung/	All relevant compo- nents and construction prod- ucts	Chlorinated paraffins	Risk mini- misation in solvent manufac- turing Prevention of refriger- ants or propellants that are persistent by them- selves or have degradation products that are persistent.*			Interior air hygiene and prevention of hazard- ous sub- stances Prevention of refriger- ants or propellants that are persistent by them- selves or have degradation products that are persistent.*	Work stage 5–9	
14	Concrete release agents	Mould oils and release agents for concreting	VOC	Solvent: Boiling point (b.p.) ≤ 250 °		Solvent free products (solvent content ≤ 0.5%)	Solvent free products (solvent content ≤ 0.5%)	Solvent free products (solvent content ≤ 0.5%)	Solvent free products (solvent content ≤ 0.5%) biodegradable products (e.g. rape- seed oil)	Technical data sheet and/or SDS and/or manufacturer declara- tion	All relevant compo- nents and construction prod- ucts		Risk mini- misation in solvent manufac- turing		Soil and groundwa- ter protec- tion		Work stage 5–9	
15	Load-bearing and non- load-bearing metal components for indoor applications with > 50 m² coated surface (Factory and building site)	Fire safety coating for metal components	VOC, emissions and halogens / heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead, cadmium, chromium (VI) com- pounds and No use of PCBs (polychlorinated biphenyl) or CE marking		Halogen-free product and VOC < 50 g/l	Halogen-free product and VOC < 25 g/l	Halogen-free product and VOC < 1 g/l	Technical data sheet and/or SDS and/or manufacturer declara- tion	Plant and construction site	DIBt principles Explanation: In the event of optional use of top coats in accordance with national technical approval (abZ) VOC < 60 g/l		Minimisation of solvent emissions into the environment			Work stage 5–9	
16	Load-bearing metal components (wall thickness > 3 mm) with > 500 m² coated surface in the building such as atrium construction, bridges, etc. (Factory and building site)	Corrosion protection coatings for internal components (max. Corrosion classC2 according to ISO 12944)	VOC / heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead, cadmium, chromium (VI) com- pounds and No use of PCBs (polychlorinated biphenyl) or CE marking	< 300 g/l	Water-borne product <140 g/l (cat. A/i or A/j in accordance with the Decopaint Di- rective)	Water- borne product <140 g/l (cat. A/i or A/j in accordance with the Decopaint Di- rective)	Water- borne product < 100 g/l or use of a C3 coating system of quality level 4 (see next row)	Manufacturer declara- tion Note: The requirements in terms of corrosion protection for load-bearing components must be collectively considered to be	Plant and construction site			Minimisation of solvent emissions into the environment			Work stage 5–9	


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17	Load-bearing metal components (wall thick- ness > 3 mm) with > 500 m² coated surface such as atrium construction, bridges, etc. (Factory and building site)	Corrosion protection coatings for components (max. Corrosion class C3 according to ISO 12944)	VOC / heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead, cadmium, chromium (VI) com- pounds and No use of PCBs (polychlorinated biphenyl) or CE marking	Coating system with VOC < 120 g/m²	Coating system with VOC < 90 g/m²	Coating system with VOC < 60 g/m²	Coating system with VOC < 30 g/m² or use of a coating system of C4 or higher, (see next row)	a single criterion with regard to exemptions (for quality levels 3 and 4).	Plant and construction site			Minimisation of solvent emissions into the environment				Work stage 5–9
18	Load-bearing metal components (wall thick- ness > 3 mm) with > 500 m² coated surface such as atrium construction, bridges, etc. (Factory and building site)	Corrosion protection coatings for components (Corrosion class higher than C3 according to ISO 12944)	VOC / heavy metals / hazardous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of lead, cadmium, chromium (VI) com- pounds and No use of PCBs (polychlorinated biphenyl) or CE marking	Coating system with VOC < 150 g/m²	Coating system with VOC < 120 g/m²	Coating system with VOC < 90 g/m²	Coating system with VOC < 60 g/m²		Plant and construction site			Minimisation of solvent emissions into the environment				Work stage 5–9
19	Non-load-bearing metal components such as banisters, metal substruc- tures, frames, steel doors, façade elements and heat and cold transfer surfaces (Factory and building site)	Corrosion protection coatings and effect coatings (e.g. metallic effect paints)	VOC / hazard- ous substances	VOC definition in accordance with Directive 2004/42/EC VOC content: ISO 11890-2 Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	< 300 g/l Category A/d in accordance with Directive 2004/42/EC	< 300 g/l Category A/d in accordance with Directive 2004/42/EC	Water-borne products < 140 g/l Exception: For metallic effect paints < 300 g/l – Category A/d in accordance with Directive 2004/42/EC	Water-borne products < 140 g/l Exception: For metallic effect paints < 300 g/l - Category A/d in accordance with Directive 2004/42/EC	Technical data sheet and/or SDS	Plant and construction site for >10 m² coated area			Minimisation of solvent emissions into the environment				Work stage 5–9
20	Reactive PU products for coating mineral floor, ceiling and wall surfaces – including in system structures with no special requirements	Seals, 2K PU paints, PU floor coatings - with the exception of OS (surface protec- tion) systems for car parks, etc.	VOC, hazardous substances	Solvent: Boiling point (b.p.) ≤ 200 ° Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	Solvent free PU products (solvent content ≤ 0.5%)	Solvent free PU products (solvent content ≤ 0.5%)	Solvent free PU products (solvent content ≤ 0.5%) and - documentation of emissions	Solvent free PU products ≤ 0.5% and - documentation of emissions	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate accord- ing to EN ISO 16000-9 / EN 16516 and/or reference product labels in the DGNB System: https://www.dgnb- sys- tem.de/de/system/lab- elanerkennung/	All relevant components and construction prod- ucts. For max. 5% of the GFA(S), no docu- mentation is re- quired.	GISCODE PU10 Documentation of emissions as an individual product or in the system AgBB test certificate	Risk mini- misation in solvent manufac- turing	Minimisa- tion of solvent emissions into the environ- ment	Indoor air hygiene		Work stage 5–9	
21	Coatings for wood surfaces: parquet, staircases and other floor coverings	Products for surface coating	VOC	Solvent: Boiling point (b.p.) ≤ 250 °		Water-borne wood floor finish with or without isocyanate- containing hardener Solvent content: ≤ 15%	Water-borne wood floor finish with or without isocyanate- containing hardener Solvent content: ≤ 15%	Water-borne wood floor finish with or without isocyanate- containing hardener Solvent content: ≤ 5%	Water-borne wood floor finish with or without isocyanate- containing hardener Solvent content: ≤ 5%	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate	All relevant components and construction prod- ucts			Minimisa- tion of solvent emissions into the environ- ment	Indoor air hygiene		Work stage 5–9	
22	PMMA and PMMA/epoxy coatings for floor and wall surfaces (e.g. skirting boards) with special requirements and liquid plastic	Industrial floorings, parking areas and underground garag- es, with the excep- tion of markings (not regulated) and liquid plastics for sealing rising components or kitchens	VOC, hazardous substances	Solvent: Boiling point (b.p.) ≤ 200 ° Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking			Solvent free products (solvent content ≤ 0.5%)	Solvent free products (solvent content ≤ 0.5%)	Technical data sheet and/or SDS and/or manufacturer declara- tion	All relevant compo- nents and construction prod- ucts			Risk mini- misation in solvent manufac- turing	Minimisa- tion of solvent emissions into the environ- ment			Work stage 5–9
23	"EP-products for coating mineral surfaces: "floors, ceilings and walls – including in system structures with no special requirements	Seals, 2K EP paints, EP floor coatings – with the exception of OS (surface protection) systems for car parks, etc.	VOC, hazardous substances	Solvent: Boiling point (b.p.) ≤ 200 ° CLP Regulation (1272/2008/EC) Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	EP products, solvent content: ≤10%	EP products, solvent content: ≤10%	EP products, solvent content: ≤10% - documentation of emissions No Hazard state- ments (300/400) according to CLP Regulation (1272/2008/EC)Exce- ption H317	EP products, solvent content: ≤10% - documentation of emissions No Hazard state- ments (300/400) according to CLP Regulation (1272/2008/EC) Exception H317	Technical data sheet and/or SDS and/or manufacturer declara- tion and/or test certificate according to EN ISO 16000-9 / EN 16516 and/or reference product labels in the DGNB System: https://www.dgnb- sys- tem.de/de/system/lab- elanerkennung/	All relevant components and construction prod- ucts For max. 5% of the GFA(S), no docu- mentation is re- quired	Documentation of emissions as an individual prod- uct or in the system AgBB test certificate	Risk mini- misation in solvent manufac- turing	Minimisa- tion of solvent emissions into the environ- ment	Indoor air hygiene		Work stage 5–9	

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24	EP/PU primers (including asphalt screeds) and coatings for floor and wall surfaces (e.g. skirting boards) with special requirements	Industrial floorings, parking areas and underground garages (OS (surface protection) 8 , 10, 11 among others) with the exception of markings (not regulated)	Solvents / hazardous substances	Solvent: Boiling point (b.p.) ≤ 200 ° Stockholm POP Convention	No use of PCBs (polychlorinated biphenyl) or CE marking	EP/PU products, solvent content: ≤10%	EP/PU products, solvent content: ≤10%	EP/PU products, solvent content: ≤10%	EP/PU products, solvent content: ≤10%	Technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate according to EN ISO 16000-9 / EN 16516	All relevant components and construction products	GISCODE PU10	Risk minimisation in solvent manufacturing		Minimisation of solvent emissions into the environment			Work stage 5–9
25	Roof sealing, sealing of buildings against soil/water/moisture, thick bitumen coating and insulating material installation	Coating products that can be processed cold (e.g. precoats) and auxiliary materials for installation (e.g. adhesive, sealants)	Bitumen / Tar	Solvent: Boiling point 135–250 °C CLP Regulation (1272/2008/EC)	free of tar and tar products	Bitumen products, solvent content: ≤ 25% and No Hazard statements (300/400) according to CLP Regulation (1272/2008/EC) Exceptions: 315, 319, 336, 412.	Bitumen products, solvent content: ≤ 25% and No Hazard statements (300/400) according to CLP Regulation (1272/2008/EC) Exceptions: 315, 319, 336, 412.	Bitumen emulsions, organic solvents: ≤ 3% and No Hazard statements according to CLP Regulation (1272/2008/EC)	Bitumen emulsions, organic solvents: ≤ 3% and No Hazard statements according to CLP Regulation (1272/2008/EC)	Technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate	All relevant components and construction products		Risk minimisation in solvent manufacturing		Minimisation of solvent emissions into the environment	Indoor air hygiene		Work stage 5–9
26	Bituminous compound sealants for inverted roofs	Bitumen primer	Bitumen / Tar	Solvent: Boiling point 135–250 °C CLP Regulation (1272/2008/EC)	free of tar and tar products	Bitumen products, aromatics content: ≤ 25% No Hazard statements (300/400) according to CLP Regulation (1272/2008/EC) Exceptions: 304, 315, 319, 336, 411, 412.	Bitumen products, aromatics content: ≤ 25% No Hazard statements (300/400) according to CLP Regulation (1272/2008/EC) Exceptions: 304, 315, 319, 336, 411, 412.	Bitumen products, aromatics content: ≤ 25% No Hazard statements (300/400) according to CLP Regulation (1272/2008/EC) Exceptions: 304, 315, 319, 336, 411, 412.	Bitumen products, aromatics content: ≤ 25% No Hazard statements (300/400) according to CLP Regulation (1272/2008/EC) Exceptions: 315, 319, 336, 411, 412.	Technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate	All relevant components and construction products				Prevention of aromatic solvents			Work stage 5–9
27	Coatings for wood surfaces such as parquet, staircases and panelling	Products for coating wood	Oils and waxes	Solvent: Boiling point 135–250 °C		Free from aromatic compounds, solvent content ≤ 15%	Free from aromatic compounds, solvent content ≤ 5%	Solvent free: (solvent content ≤ 0%)	Solvent free: (solvent content ≤ 0%)	Technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate	All relevant components and construction products		Risk minimisation in solvent manufacturing		Minimisation of solvent emissions into the environment	Indoor air hygiene		Work stage 5–9
28	Load-bearing internal wood components together with outward-facing overhangs (Factory and building site)	Chemical wood protection load-bearing components	Wood preservative (product type 8 in accordance with 528/2012/EC)	528/2012/EC (Biocide regulation) Stockholm POP Convention	No use of Dichlorodiphenyltrichloroethane (DDT) and Pentachlorophenol (PCP) and Hexachlorocyclohexane (HCH) (Lindane)	Use Class* 0: Wood preservative for construction purposes only in accordance national "Building inspection approval" Use Class* 1–3: Marketable biocidal products in accordance with 528/2012/EC	Use Class* 0 and 1: Wood preservative for construction purposes only in accordance with national "Building inspection approval" Use Class* 2–3: Marketable biocidal products in accordance with 528/2012/EC	Wood preservative for construction purposes only in accordance with national "Building inspection approval" or natural durability in accordance with DIN EN 350-2	Wood preservative for construction purposes only in accordance with national "Building inspection approval" or natural durability in accordance with DIN EN 350-2	Planning, technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate	All relevant components and construction products	Wood preservative in accordance with 68800-2 or natural durability in accordance with DIN EN 350-2				Prevention of risk materials and impurities in recycling		Work stage 3–9
29	External load-bearing wood components (Factory and building site)	Chemical wood protection load-bearing components	Wood preservative (product type 8 in accordance with 528/2012/EC)	528/2012/EC (Biocide regulation) Stockholm POP Convention	No use of Dichlorodiphenyltrichloroethane (DDT) and Pentachlorophenol (PCP) and Hexachlorocyclohexane (HCH) (Lindane)	Use Class* 2–4: Marketable biocidal products in accordance with 528/2012/EC	Use Class* 2: Wood preservative for construction purposes only in accordance with national "Building inspection approval" Use Class* 3 and 4: Marketable biocidal products in accordance with 528/2012/EC	Use Class* 2: Wood preservative for construction purposes only in accordance with national "Building inspection approval" Use Class* 3 and 4: Marketable biocidal products in accordance with 528/2012/EC	Wood preservative for construction purposes only in accordance with national "Building inspection approval" or natural durability in accordance with DIN EN 350-2	Planning and/or technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate	All relevant components and construction products	Wood preservative in accordance with 68800-2 or natural durability in accordance with DIN EN 350-2				Prevention of risk materials and impurities in recycling		Work stage 3–9
30	Wooden windows and internal and external non-load-bearing wood components (e.g. façade and patio) (Factory and building site)	Chemical impregnation of non-load-bearing components	Wood preservative (product type 8 in accordance with 528/2012/EC)	528/2012/EC (Biocide regulation)	Internal: No chemical wood preservative Exception: Windows only with marketable biocidal products in accordance with 528/2012/EC	Internal: No chemical wood preservative Exception: Windows only with marketable biocidal products in accordance with 528/2012/EC	Internal: No chemical wood preservative Exception: Windows only with marketable biocidal products in accordance with 528/2012/EC	No chemical wood preservative in the interior and exterior Exception: Windows only with marketable biocidal products in accordance with 528/2012/EC	No chemical wood preservative in the interior and exterior Exception: Windows only with marketable biocidal products in accordance with 528/2012/EC	Technical data sheet and/or SDS and/or manufacturer declaration	Internal: All relevant components External: All relevant components and construction products. For max. 5% of the GFA(S), no documentation is required.					Prevention of risk materials and impurities in recycling		Work stage 3–9

DGNB System – New buildings criteria set VERSION 2020 INTERNATIONAL													Environmental quality ENV1.2 / LOCAL ENVIRONMENTAL IMPACT APPENDIX					
No.	RELEVANT COMPONENTS/ CONSTRUCTION MA- TERIALS/ SURFACES	SCOPE	SUBSTANC- ES/ASPECTS CONSIDERED	REFERENCE STANDARD	QUALITY LEVEL 0	QUALITY LEVEL 1	QUALITY LEVEL 2	QUALITY LEVEL 3	QUALITY LEVEL 4	TYPE OF DOCUMENTATION	SCOPE OF AP- PLICATION AND VERIFICATION	NOTES RE- GARDING DEFINI- TIONS/EXPLAN- ATIONS/ FOOTNOTES	FOCUS OF IMPACT OF THE SUBSTANCES/ASPECTS CONSID- ERED OVER THE INDIVIDUAL STAGES IN THE LIFE OF A BUILD- ING (MODULES IN ACCORDANCE WITH DIN EN 15978)					APPLICA- TION
31	Products with film preser- vation and goods treated with biocides	Exterior plasters, façade coatings, floor coverings made of wool/natural fibres, wood glazes with film preservation	Biocides (product type 7 and 9 in accord- ance with 528/2012/EC: Preservatives for construction materials) e.g. algicides, fungicides, moth repellents	528/2012/EC (Biocide regulation)					The following applies to NWO15: No internal use of biocid- al substances with the exception of in-can preservation	Manufacturer declara- tion	All relevant components and construction prod- ucts	Approved sub- stance in ac- cordance with 528/2012/EC Biocidal Prod- ucts Directive					Prevention of risk materials and impuri- ties in recycling	Work stage 3–9
32	All aluminium and stain- less steel components in the building envelope with a total area as a component of > 5 m². Sun protection slats, roller shutter boxes and stainless steel railings are not taken into account. (Factory)	Products for passivation of alu- minium and stainless steel	Chromium (VI)					Chromium (VI)-free passivating agents	Chromium (VI)-free passivating agents	Manufacturer declara- tion	All relevant building envelope compo- nents such as façade profiles, coverings and parapet plates					Soil and groundwa- ter protec- tion		Work stage 3–9
33	Coated metal compo- nents: Façade elements, doors, radiators and heating/cooling ceilings. Hot-dip galvanising is not considered to be a coat- ing for the purposes of this criterion. (Factory and building site)	Primers and final coatings (e.g. paints, lac- quers, powder coatings)	Lead, cadmium and chromium (VI)		No use of lead, cadmium and chromium (VI) com- pounds	No use of lead, cadmium and chromium (VI) com- pounds	No use of lead, cadmium and chromium (VI) com- pounds	No use of lead, cadmium and chromium (VI) com- pounds	No use of lead, cadmium and chromium (VI) com- pounds	SDS and/or manufacturer declara- tion	Components with coating applied at the factory with a coated area > 100 m² per component type (e.g. steel door) in the building			Prevention of hazard- ous waste (Cr(VI) baths)				Work stage 3–9
34	Roof covering, guttering, downpipes	Components convey- ing water on the roof and rainwater drain- age	Lead, copper and zinc					Heavy metal filters, if area > 50m² of the projected roof area viewed from above	Heavy metal filters, if area > 50m² of the projected roof area viewed from above	Planning and/or manufacturer declara- tion and/or documen- tation in accordance with Umweltbundesamt (UBA) guideline 17/05	All relevant components and construction prod- ucts					Soil and groundwa- ter protec- tion		Work stage 3–9
35	Plastics for installing surfaces (floor and wall) as well as components on the building envelope (Factory)	Resilient floor coverings (e.g. PVC, rubber), wall coverings, skylights, plastic windows, sound insulation inserts (e.g. façade brace)	Organolead and organostannic compounds		Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Manufacturer declara- tion	All relevant components > 100 m² per product group / component type in the building; rele- vant is the merged area	Please note: Use of recycled materials					Prevention of risk materials and impuri- ties in recycling	Work stage 5–9
36	Plastic films on roof and foundations (Factory)	Plastic films for sealing on roof and basement level external walls are taken into account	Organolead and organostannic compounds		Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Lead content < 0.1% and tin content < 0.1%	Manufacturer declara- tion	All relevant compo- nents > 100 m²	Please note: Use of recycled materials					Prevention of risk materials and impuri- ties in recycling	Work stage 5–9
37	Cooling systems/ building technology/ split devices (Factory)	Refrigerants	Halogenated refrigerants		Additional evaluation point: Does not contain halogenated/ partially halogenated refrigerants	Additional evaluation point: Does not contain halogenated/ partially halogenated refrigerants	Additional evaluation point: Does not contain halogenated/ partially halogenated refrigerants	Additional evaluation point: Does not contain halogenated/ partially halogenated refrigerants	Additional evaluation point: Does not contain halogenated/ partially halogenated refrigerants	Building technology planning and/or manufacturer declara- tion	All relevant components and construction prod- ucts		Prevention of refriger- ants or propellants that are persistent by them- selves or have degradation products that are persistent.*			Prevention of refriger- ants or propellants that are persistent by them- selves or have degradation products that are persistent.*		Work stage 3–9

DGNB System – New buildings criteria set VERSION 2020 INTERNATIONAL													Environmental quality ENV1.2 / LOCAL ENVIRONMENTAL IMPACT APPENDIX					
No.	RELEVANT COMPONENTS/ CONSTRUCTION MATERIALS/ SURFACES	SCOPE	SUBSTANCES/ASPECTS CONSIDERED	REFERENCE STANDARD	QUALITY LEVEL 0	QUALITY LEVEL 1	QUALITY LEVEL 2	QUALITY LEVEL 3	QUALITY LEVEL 4	TYPE OF DOCUMENTATION	SCOPE OF APPLICATION AND VERIFICATION	NOTES REGARDING DEFINITIONS/EXPLANATIONS/ FOOTNOTES	FOCUS OF IMPACT OF THE SUBSTANCES/ASPECTS CONSIDERED OVER THE INDIVIDUAL STAGES IN THE LIFE OF A BUILDING (MODULES IN ACCORDANCE WITH DIN EN 15978)					APPLICATION
38	Assembly foams B2 or E with insulating and attaching function (except for adhesive bonds of insulating materials)	In-situ and assembly foams for installing external doors and windows and for fittings, e.g. door frames	Halogenated and other propellants, solvents, plasticisers and flame retardants	REACH, SVHC / VOC	No use of halogenated propellants and TCEP	$\leq 750 \mu\text{g}/\text{m}^3$ after 3 days or $\leq 60 \mu\text{g}/\text{m}^3$ after 28 days and - no use of halogenated propellants, chlorinated paraffins and TCEP	$\leq 750 \mu\text{g}/\text{m}^3$ after 3 days or $\leq 60 \mu\text{g}/\text{m}^3$ after 28 days and - no use of halogenated propellants, chlorinated paraffins and TCEP	$\leq 750 \mu\text{g}/\text{m}^3$ after 3 days or $\leq 60 \mu\text{g}/\text{m}^3$ after 28 days and - no use of halogenated propellants, chlorinated paraffins, and TCEP	$\leq 750 \mu\text{g}/\text{m}^3$ after 3 days or $\leq 60 \mu\text{g}/\text{m}^3$ after 28 days and - no use of halogenated propellants, chlorinated paraffins, TCEP, plasticisers and halogenated flame retardants	Technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate according to EN ISO 16000-1/9 /EN 16516 and/or reference product labels in the DGNB System: https://www.dgnb-sys-tem.de/de/system/lab-elanerkennung/	All relevant components and construction products	Propellants REACH candidate list	Prevention of refrigerants or propellants that are persistent by themselves or have degradation products that are persistent.*			Prevention of refrigerants or propellants that are persistent by themselves or have degradation products that are persistent.*		Work stage 5–9
39	Assembly foams for insulating materials	Assembly foams e.g. for attaching ETICS, perimeter insulation, cellar ceiling insulation and flat roof insulation	Halogenated and other propellants	REACH, SVHC	No use of assembly foams (except for joints)	No use of assembly foams (except for joints)	No use of assembly foams (except for joints)	No use of assembly foams (except for joints)	No use of assembly foams (except for joints)	Documentation of the mineral adhesive, joint foam with no halogenated propellants (technical data sheet and/or SDS)	All relevant components and construction products		Prevention of refrigerants or propellants that are persistent by themselves or have degradation products that are persistent.*			Prevention of refrigerants or propellants that are persistent by themselves or have degradation products that are persistent.* Durability of the adhesive bond		Work stage 5–9
40	Synthetic insulating materials for buildings and building services	PS/XPS/PUR insulating products, flexible building technology insulation (rubber and PE)	Halogenated propellants	REACH	No use of halogenated propellants	No use of halogenated propellants	No use of halogenated propellants	No use of halogenated propellants	No use of halogenated propellants	Technical data sheet and/or manufacturer declaration	All components and construction products relevant for the building thermal envelope and the main parts of the building technical installations			Prevention of potent greenhouse gases				Work stage 5–9
41	Synthetic insulating materials (building and building services incl. heating and cooling surfaces)	PS/XPS, PUR/PIR, Resol panels	Flame retardant hexabromocyclododecane (HBCD)	HBCD ban	HBCD-free	HBCD-free	HBCD-free	HBCD-free	HBCD-free	SDS and/or manufacturer declaration						Prevention of risk materials and impurities in recycling		Work stage 5–9
42	Construction products equipped with flame retardant (mixtures)	Technical fire protection, adhesive bonds or seals in interior spaces, PU installation adhesives: Firewall filler, fire protection coatings for cables, fire protection silicones, PU installation adhesives for insulating materials (EPS, XPS, PUR)	Chlorinated paraffins (cf. definition) and SVHC	Stockholm POP Convention and SVHC from the REACH candidate list as well as long-chain chlorinated paraffins	No use of PCBs (polychlorinated biphenyl) or CE marking			CPs < 0.1% and SVHC \leq 0.1%	CPs < 0.1% and SVHC \leq 0.1%	Technical data sheet and/or current SDS in accordance with 1907/2006/EC (substances that require declaration in SDS) and manufacturer declaration "No chlorinated paraffins and no SVHC > 0.1%"	All relevant components and construction products	Chlorinated paraffins POP Regulation REACH candidate list				Prevention of hazardous substances		Work stage 5–9
43	Construction products equipped with flame retardant (products)	Insulating materials for building services and wall coverings (fibreglass wallpapers, non-woven paint substrates, non-woven decorative fabrics, etc.)	Chlorinated paraffins (cf. definition), polybrominated biphenyls (PBB) and diphenyl ethers (PBDE) and SVHC	Stockholm POP Convention and SVHC from the REACH candidate list as well as long-chain chlorinated paraffins				CPs < 0.1% PBB < 0.1%, PBDE < 0.1%, and SVHC \leq 0.1% Exemption: For construction material class B1, insulating materials with long-chain CP (LCCP) are tolerated	CPs \leq 0.1% PBB < 0.1%, PBDE < 0.1%, and SVHC \leq 0.1%	Technical data sheet and/or manufacturer declaration "No chlorinated paraffins, no polybrominated biphenyls, no polybrominated biphenyl ethers and no SVHC> 0.1%"	All relevant components and construction products	Chlorinated paraffins POP Regulation REACH candidate list				Prevention of hazardous substances	Prevention of hazardous substances	Work stage 5–9

DGNB System – New buildings criteria set VERSION 2020 INTERNATIONAL													Environmental quality ENV1.2 / LOCAL ENVIRONMENTAL IMPACT APPENDIX					
No.	RELEVANT COMPONENTS/ CONSTRUCTION MA- TERIALS/ SURFACES	SCOPE	SUBSTANC- ES/ASPECTS CONSIDERED	REFERENCE STANDARD	QUALITY LEVEL 0	QUALITY LEVEL 1	QUALITY LEVEL 2	QUALITY LEVEL 3	QUALITY LEVEL 4	TYPE OF DOCUMENTATION	SCOPE OF AP- PLICATION AND VERIFICATION	NOTES RE- GARDING DEFINI- TIONS/EXPLAN- ATIONS/ FOOTNOTES	FOCUS OF IMPACT OF THE SUBSTANCES/ASPECTS CONSID- ERED OVER THE INDIVIDUAL STAGES IN THE LIFE OF A BUILD- ING (MODULES IN ACCORDANCE WITH DIN EN 15978)					APPLICA- TION
44	Products made of Plastics (Factory)	External wall and roof sealing, wall coverings, windows, electrical cables: Plastic films, wall coverings, wallpaper, plastic windows, cable sheathing	SVHC phthalates (plasticisers) / hazardous substances	SVHC in the REACH candidate list (all); partially included in REACH Annex XIV				SVHC ≤ 0.1%	SVHC ≤ 0.1%	Technical data sheet and/or manufacturer declara- tion "No SVHC > 0.1%"	All relevant compo- nents and construction prod- ucts	REACH candi- date list				Prevention of hazard- ous sub- stances	Prevention of hazard- ous sub- stances	Work stage 5–9
45	Construction products (products) equipped with biocides and flame retardants: Wood pre- servatives, wood materi- als, insulating materials (Factory and building site)	Load-bearing wood structures, soft fibreboard, insulation incl. blown-in prod- ucts and fills: Wood preservative prepa- rations, wood materi- als, organic insulat- ing materials (cellu- lose, fibreboard, wood shavings, sheep's wool, etc.)	Boron com- pounds as recipe compo- nents	SVHC in the REACH candidate list (all); partially included in REACH Annex XIV				Boron compounds ≤ 0.1%	Boron compounds ≤ 0.1%	Technical data sheet and/or manufacturer decla- ration "No boron compounds > 0.1%"	All relevant compo- nents and construction products						Prevention of hazard- ous sub- stances	Work stage 5–9
46	PU system adhesive	PU construction adhesive for dry screed, hollow floors, dry construction boards	Solvents	REACH			Solvent-free (solvent content ≤ 0.5%)	Solvent-free (solvent content ≤ 0.5%)	Solvent-free) (solvent content ≤ 0.5%)	Technical data sheet and SDS	All relevant compo- nents and construc- tion products							Work stage 5–9
47	Coated and uncoated wood-based materials: chipboard, blockboard, veneer panels, fiberboard	Interior doors made of wood-based materials, Room acoustic elements, room-in- room systems, Panel cladding on the wall and ceiling	Formaldehyde	emission values according to DIN EN 16516 or DIN EN 717-1 (with a factor of 2)		Formaldehyde ≤ 0.10 ppm (corresponds to 0.124 mg / m³)	Formaldehyde ≤ 0.10 ppm (corresponds to 0.124 mg / m³)	Formaldehyde ≤ 0.10 ppm (corresponds to 0.124 mg / m³)	Formaldehyde ≤ 0.08 ppm (corresponds to 0.096 mg / m³)									
48	Timber construction and prefabricated timber houses: Wood-based materials in structural timber construction (e.g. stiffening): chipboard, veneer panels, fibreboard	Bracing wooden panels on walls, floors and ceilings in wooden houses / wooden structures	Formaldehyde	emission values according to DIN EN 16516 or DIN EN 717-1 (with a factor of 2)		Formaldehyde ≤ 0.10 ppm (corresponds to 0.124 mg / m³)	Formaldehyde ≤ 0.10 ppm (corresponds to 0.124 mg / m³)	Formaldehyde ≤ 0.10 ppm (corresponds to 0.124 mg / m³)	Formaldehyde ≤ 0.08 ppm (corresponds to 0.096 mg / m³)									
49	Exterior and Interior walls, floor and ceiling coverings, Fillers and adhesives under wall and floor coverings Window / door / wall joints Building installations	Facade and wall cladding, insulation, lightweight and fire protection elements, sealing masses of wall and ceiling breakthroughs, ceiling coverings (such as fibreboard), tile adhesives, plastic coverings (e.g., asbestos-backed cushion-vinyl linings), cast and fillers, industrial screeds piping and insulation (heating and ventilation systems)	Asbestos fiber products	Regulation (EC) No. 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC	Asbestos free or CE marking	Asbestos free or CE marking	Asbestos free or CE marking	Asbestos free or CE marking	Asbestos free or CE marking	Technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate "no SVHC > 0.1%"	All relevant components and construction prod- ucts	POP Regulation REACH candi- date list	Prevention of fibers that are persistent by them- selves or have degradation products those are persistent.				Prevention of risk materials and impuri- ties in recycling	Service phase 3–9

DGNB System – New buildings criteria set VERSION 2020 INTERNATIONAL													Environmental quality ENV1.2 / LOCAL ENVIRONMENTAL IMPACT APPENDIX					
No.	RELEVANT COMPONENTS/ CONSTRUCTION MA- TERIALS/ SURFACES	SCOPE	SUBSTANC- ES/ASPECTS CONSIDERED	REFERENCE STANDARD	QUALITY LEVEL 0	QUALITY LEVEL 1	QUALITY LEVEL 2	QUALITY LEVEL 3	QUALITY LEVEL 4	TYPE OF DOCUMENTATION	SCOPE OF AP- PLICATION AND VERIFICATION	NOTES RE- GARDING DEFINI- TIONS/EXPLAN- ATIONS/ FOOTNOTES	FOCUS OF IMPACT OF THE SUBSTANCES/ASPECTS CONSID- ERED OVER THE INDIVIDUAL STAGES IN THE LIFE OF A BUILD- ING (MODULES IN ACCORDANCE WITH DIN EN 15978)					APPLICA- TION
50	Artificial mineral fibers insulating materials for buildings and building installations	Heat and sound insulation of buildings Insulations of pipelines	Artificial mineral fibers	Regulation (EC) No. 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC	No use of Artificial mineral fibers ≤ 3 µm or CE marking	No use of Artificial mineral fibers ≤ 3 µm or CE marking	No use of Artificial mineral fibers ≤ 3 µm or CE marking	No use of Artificial mineral fibers ≤ 3 µm or CE marking	No use of Artificial mineral fibers ≤ 3 µm or CE marking	Technical data sheet and/or SDS and/or manufacturer declaration and/or test certificate "no SVHC > 0.1%"	All relevant components and construction prod- ucts	POP Regulation	Prevention of fibers that are persistent by them- selves or have degradation products that are persistent		Labour / work place protection		Prevention of risk materials and impuri- ties in recycling	Service phase 5–9

APPENDIX 1 – Criteria matrix

Note: Color-coded rows (column "No."): In addition, the explanations in Chapter III Method have to be considered ("The following requirements of this criterion are listed below View, demonstrate and comply with materials / products / materials delivered to the site. ")

Note: Color-coded rows (column "No."): 47 and 48 to be considered as "optional" and serve for data sampling purposes i.e. no influence on the criterion evaluation in this release version. NOTE: for the projects claiming ESG Verification (compliance to the Taxonomy regulation) these cells are mandatory to fulfill

- * Use Classes:**
- 0

Internally installed wood, constantly dry, approach not possible due to wood-damaging insects or wood cross-section controllable (at least visible on three sides)
- 1

Internally installed wood, constantly dry, approach possible by insects that damage wood;
- 2

Timber that is not exposed to earth contact or direct weathering or leaching, temporary humidification possible
- 3

Wood not under roof, but without constant earth and / or water contact, accumulation of water in the wood - even spatially limited - to be expected
- 4

Wood exposed to continuous earth contact or constant humidification



Explanations and information regarding APPENDIX 1 (criteria matrix):

Legally valid proof (see General information: 1): Legally valid proof is considered to include a document signed ppa. or a clear statement in the manufacturer declaration that this was legally issued by a person with knowledge of the recipe.

Chlorinated paraffins:

The term "chlorinated paraffins" refers to substance mixtures that contain chlorinated alkanes with a chain lengths of 10-30 carbon atoms and a chlorination degree of 10% to 70% by mass (= SCCP (short-chain CP), MCCP (medium-chain CP) and LCCP (long-chain CP)).

POP Regulation and REACH candidate list:

Both the POP Regulation and the REACH candidate list currently regulate short-chain chlorinated paraffins. As a precaution, however, medium-chain and long-chain chlorinated paraffins are also relevant for consideration.

Approved substance in accordance with 528/2012/EC:

For products manufactured in the EU, it can be assumed that this requirement has been complied with due to the statutory regulations in place (no additional documentation is required here).

Biocidal Products Directive:

More information regarding the substances permitted within the Biocidal Products Directive can be found at: <http://www.reach-clp-biozid-helpdesk.de/de/Biozide/Wirkstoffe/Genehmigte-Wirkstoffe/Genehmigte-Wirkstoffe.html>

Documentation of emissions:

Certification (no more than 5 years old) by a laboratory accredited in accordance with ISO 17025 that the product or system complies with the AgBB criteria (except for sensory characteristics) on the basis of emissions testing in accordance with ISO 16000-9, prEN 16516 or EN 16402.

Hydrocarbon plasticiser (HC):

Hydrocarbon plasticisers are aliphatic hydrocarbons within a boiling point range of 200–400 degrees Celsius.

Note – coatings applied at the factory:

The VOC requirements in row 1 in the highest quality level (QL) can be fulfilled in the factory with coating materials of QL3 (<100 g VOC/l).

Note – use of recycled materials:

For products made from recycled plastics, proof that they do not contain organolead, organocadmium or organostannic compounds must be provided via a manufacturer declaration.

Information, explanations and footnotes for "Focus of impact of the substances/aspects considered over the individual stages in the life of a building":

- * "Halogenated refrigerants or propellants" in rows 13, 37, 38 and 39:
Prevention of halogenated refrigerants or propellants, unless it has been proven that they and their degradation products do not accumulate in the environment or have persistent degradation products that can pollute (accumulate in) natural basins or have harmful effects there.



(Table in Excel format is available under the internal area of DGNB website)

[illegible]



APPENDIX 3

Example letter "Confirmation by manufacturing companies"

"Dear Sir or Madam,

For the project:

The following coating materials/coating systems are planned to be used:

NO.	PRODUCT	DFT μM	VOC G/L	VOC MASS%	VOC G/M ²
1					
2					
3					
Total					

Please supplement the VOC data in the units g/l, mass% and g/m² of coated surface with the specified dry film thickness (DFT) on the basis of the theoretical yield.

Thank you, and
kind regards



APPENDIX 4

Example letter "SVHC enquiry"

Regulation (EC) No. 1907/2006 (REACH Regulation), obligation to provide information in accordance with Art. 33

Dear Sir or Madam,

The European Chemicals Agency (ECHA) has published a list of substances of very high concern that meet the criteria of Art. 57 of the REACH Regulation mentioned above and that have been determined in accordance with the process described in Art. 59 of the regulation on its website (http://echa.europa.eu/chem_data/candidate_list_table_en.asp).

I request that you inform me/us, with reference to Art. 33(2) of the regulation mentioned above, of whether the product "XXXX" sold by you contains any of these substances of very high concern in proportions of more than 0.1%, and that you provide me/us with the information required for safe use of the product "XXXX".

In accordance with Art. 33 of the regulation mentioned above, you, as a supplier of "XXXX", are obliged to provide me, as a user, with this information within 45 days.

Thank you, and
kind regards



APPENDIX 5

Dealing with incorrect use (during material inspections on the construction site)

If, as part of these construction site inspections, it is determined that individual materials have been installed that are not in conformity with the intended quality level 3 or 4, their use must be prohibited in writing by the construction managers/property monitoring specialists. This notification of defects specifies the material, the affected component, the work that has been carried out, the reason for deviation and the areas constructed using the material that is not in conformity.

These deviations must be documented as follows in order to ensure that they do not prevent the achievement of objectives in accordance with quality level 3 or 4:

- Specification of the suitable material approved for use prior to commencement of the work in question (approval list with date),
- Written notification of defects by the construction managers/property monitoring specialists and notification that the work is free from defects by the company responsible for carrying out construction,
- Specification of the area where work was carried out using the material that is not in conformity; here, it must be proven that this amounts to < 5% of the area of the component (example: Flat roof as a warm roof, incorrect use of undercoat, area < 5% of the warm roof area) for which the material type in question is intended in the trade involved in carrying out the work (proof via building elements catalogue),
- The building owner is not subject to any penalties arising from harmful substances that permanently remain within the material such as heavy metals, plasticisers or solvents that form deposits on absorbent substrates (solvent seal on parquet) – proof via technical data and safety data sheet or SVHC documentation or manufacturer declaration, e.g. plasticisers
- The incorrect use does not prevent the achievement of objectives intended for the project in accordance with SOC1.2 indicator 1, Indoor air quality (degassing behaviour, ventilation programme for compensation, etc.)
- Logs of properly executed and regular material inspections (see above) on the construction site (cf. PRO2.1) are presented
- Construction managers/property monitoring specialists or, alternatively, the company responsible for carrying out construction provide legally valid confirmation (ppa.) that – with the exception of the single instance of incorrect use – work has been carried out exclusively with approved materials in accordance with the target quality level of this criterion

Please note: The DGNB expressly states that the DGNB documentation must correspond to the building constructed. Any discrepancies between the technical documentation and the DGNB documentation with regards to the materials used may therefore result in pecuniary losses, even for future owners of the buildings years later. As such, the constructions are tested for harmful substances, e.g. for DGNB inventory certification or as part of DD reviews, in order to prevent pecuniary losses as a result of refurbishment costs.

It is therefore recommended that the construction managers/property monitoring specialists obtain legally valid confirmation of the exclusive use of approved materials by the companies responsible for carrying out construction (e.g. via signature of the approval list).