

Byggvarubedömningen Assessment Criteria 3.0

Valid from 2015-04-30

Changes from the previous version relate to:

- Update from KIFS to CLP
- Adjusted content limits regarding "recommended" level
- Update of "Table 1" – Substances of concern

General Information

Byggvarubedömningen is a business association consisting of Sweden's major property owners and building contractors. The idea behind the association is to assess building products based on environmental and health aspects. The ambition by a common standard for assessments and an easy to use web system is to increase the amount of environmental sustainable buildings. BVB see assessment as a way of taking responsibility for what is being built and used in our properties and left to future generations.

In BVBs web-based system one can find environmental assessments for the most commonly used products/ goods used in the real estate industry. These assessments are primarily based on the chemical content of products, but also on a number of life-cycle criteria. More information can be found under each assessment category.

BVB bases its assessments on a documentation basis that is received from suppliers themselves, but also users (customers). Documents needed for an assessment can be as follows:

- Building Product Declaration (Kretsloppsrådet BPD3)
- Material Safety Data Sheet in Swedish (only required for chemical products)
- Certificate of substance content and concentrations (mandatory only for products that strives level - "recommended")
- Other product-specific information is encouraged for both the assessment's sake, as for customer benefits, i.e:
 - Product datasheet
 - FSC documentation
 - CE-certification
 - Emission analysis documentation

More information follows in this document and on www.byggvarubedomningen.se.

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Byggvarubedömningens assessment criteria

1. Declaration of content

(BPD3: Section 3. Product information and section 4. Contents)

The assessment criteria are mainly based on the classification limits for substances in accordance to chemical regulation REACH and CLP. Any extensions are specified in more detail under each criterion.

General information:

Substance content are assessed based on their chemical properties, not on their eventual classification in mixtures.

Concentration limits specified under each criterion refers to individual substance. Addition of the substances occurs only where it is specified.

If a substance is covered by the specific concentration limits under the CLP Regulation, Annex VI, in lower limits than the general concentration limits (as found in this document), then the specific limits are applicable for the accepted level and another factor of 10 lower for the recommended level.

| Recommended | Accepted | To be Avoided – explore alternative products | Information/Reference |
|---|---|---|---|
| 0.0 a) Documentation | | | |
| Certificate of substance content and levels exists. <i>See Appendix 1 for criteria and list of specially focused substances.</i> | Building Product Declaration or equivalent is submitted with properly filled information about the content of the product. Also: Safety data sheet for chemical products. | Information about the content of the product is incomplete. | |
| 0.0 b) Documentation for the products covered by the RoHS directive | | | |
| CE Marking EU/EC declaration of conformity is submitted. | CE Marking EU/EC declaration of conformity is submitted. | Marking or declaration is missing. | Applies only to products covered by the RoHS directive. |

| Recommended | Accepted | To be Avoided – explore alternative products | Information/Reference |
|--|-----------|--|-----------------------|
| 0.1 a) Carcinogens Substances with properties according for carcinogenicity category 1A or 1B (H350) | | | |
| $\leq 0.01\%$ | $< 0.1\%$ | $\geq 0.1\%$ | |
| 0.1 b) Carcinogens Substances with properties according for carcinogenicity category 2 (H351) | | | |
| $\leq 0.1\%$ | $< 1\%$ | $\geq 1\%$ | |
| 0.2 a) Mutagen Substances with properties according the germ cell mutagenicity category 1A or 1B (H340) | | | |
| $\leq 0.01\%$ | $< 0.1\%$ | $\geq 0.1\%$ | |
| 0.2 b) Mutagen Substances with properties according the germ cell mutagenicity category 2 (H341) | | | |
| $\leq 0.1\%$ | $< 1\%$ | $\geq 1\%$ | |
| 0.3 a) Reproductive toxins Substances with properties according the Reproductive toxicity, category 1A or 1B (H360) | | | |
| $\leq 0.01\%$ | $< 0.1\%$ | $> 0.1\%$ | |
| 0.3 b) Reproductive toxins Substances with properties according the Reproductive toxicity, category 2 (H361) | | | |
| $\leq 0.3\%$ | $< 3\%$ | $> 3\%$ | |

| Recommended | Accepted | To be Avoided – explore alternative products | Information/Reference |
|--|---|---|--|
| 0.4 May cause harm to breast-fed babies Substances with properties according the Reproductive toxicity, category Effects on or via lactation (H362). | | | |
| ≤ 0.03 % | < 0.3 % | > 0.3 % | |
| 0.5 Endocrine disruptors | | | |
| ≤ 0.01% of individual substance Substances included in CAT 1, CAT 2 or CAT 3 according to the EU EDC Database or EDC substances in SIN-list from Chemsec ² . | < 0.1% of individual substance Substances included in CAT 1 or CAT 2 according to the EU EDC Database. | ≤ 0.1% of individual substance Substances included in CAT 1 or CAT 2 according to the EU EDC Database ¹ . | 1. http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm 2. http://www.chemsec.org/ |
| 0.6 Persistent, bioaccumulating and toxic organic substances (PBT) | | | |
| ≤ 0.01 % | < 0.1 % | ≥ 0.1 % | Substances with a half-life of one of the following: <ul style="list-style-type: none"> • > 60 days into marine waters • > 40 days in freshwater • > 180 days in marine sediments • > 120 days in freshwater sediment • > 120 days in soil AND BCF (Bio Concentration Factor) > 2000 AND Chronic NOEC (No Effect Concentration) with any of the following: <ul style="list-style-type: none"> • < 0.01 mg / l • < 30 mg / kg diet • CMR • classified as H372, H373 or H362 Criteria in acc. with PRIO (www.kemi.se) |

| Recommended | Accepted | To be Avoided – explore alternative products | Information/Reference |
|--|----------|--|---|
| 0.7 Very persistent and very bioaccumulating organic substances (vPvB) | | | Substances with a half-life > 60 days in seawater, or > 60 days in freshwater, or > 180 days in marine sediments, or > 180 days in freshwater sediment, or > 180 days in soil, and BCF (Bio Concentration Factor) > 5000 Criteria in acc. with PRIO (www.kemi.se) |
| ≤ 0.01 % | < 0.1 % | ≥ 0.1 % | |
| 0.8 Pure substance or compound of lead | | | |
| Chemical products: Pure lead (Pb) or it's compounds must not be present irrespective of concentration (zero tolerance) Other products: ≤ 0.01 % | < 0.1 % | ≥ 0.1 % | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|---|---|---|
| 0.9 Pure substance or compound of mercury | | | * In accordance with Swedish legislation SFS 1998:944 there is a total ban against mercury. The ban applies to products where mercury <i>has been used or added intentionally</i> . Low concentrations of mercury that are not intentionally added in any stage thus fall outside the prohibition. By low concentrations BVB means a presence of <2.5 mg/kg. The concentration limit is set in accordance with regulatory requirements for soil quality so that accepted products will not add to background levels when used or deposited (e.g.: sewage sludge according to SFS 1998:944 §20). The same concentration limit is also found in the general guidelines for less sensitive land use (MKM) from The Swedish Environmental Protection Agency. |
| Prohibited Mercury (or compound of mercury) has not been used in, or added to, the product. OR Contamination < 0.25 mg/kg*. | Prohibited Mercury (or compound of mercury) has not been used in, or added to, the product. OR Contamination < 2.5 mg/kg*. | Presence Mercury (or compound of mercury) has been used in, or added to, the product. OR Contamination ≥ 2.5 mg/kg*. | |
| 0.10 Pure substance or compound of cadmium | | | |
| Chemical products: Pure cadmium or its compounds must not be present irrespective of concentration (zero tolerance) Other products: ≤ 0.001 % | < 0.01 % | ≥ 0.01 % | |
| 0.11 Harmful to the ozone layer Substances with properties according to the classification category Hazardous to the ozone layer (EUH 059, H420) | | | |
| ≤ 0.01 % | < 0.1 % | ≥ 0.1 % | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|---|---|---|--|
| 0.12 a) Allergenic Substances with properties according to the hazard classes Respiratory sensitization (H334) | | | |
| ≤ 0.02 % | < 0.2 % | > 0.2 % | |
| 0.12 b) Allergenic Substances with properties according to the hazard classes Skin sensitizer (H317) | | | |
| ≤ 0.1 % | < 1 % | ≥ 1 % | |
| 0.13 Acute toxicity Substances with properties according to the hazard class acute toxicity category 1, 2 or 3 (H300, H310, H330, H301, H311 or H331) | | | * Each relevant route should be considered. ATEmix calculated according to the CLP Regulation (EC) No 1272/2008, Annex 1, Section 3. |
| conc ≤ 0.01% of substances in Category 1 conc ≤ 0.1% of substances in Category 2 conc ≤ 1% of substances in Category 3 | Starts from ATE value of the mixture: * ATEmix > 300 (oral exposure) ATEmix > 1000 (dermal) ATEmix > 2500 (inhalation gases) ATEmix > 10 (inhalation, vapors) ATEmix > 1.0 (inhalation of dust / mist) | Starts from ATE value of the mixture: * ATEmix ≤ 300 (oral exposure) ATEmix ≤ 1000 (dermal) ATEmix ≤ 2500 (inhalation gases) ATEmix ≤ 10 (inhalation, vapors) ATEmix ≤ 1.0 (inhalation of dust / mist) | |
| 0.14 a) Toxicity after single exposure Substances with properties according to the hazard class Specific target organ toxicant single exposure (STOT-SE) category 1 (H370) | | | |
| ≤ 0.1 % | < 1 % | ≥ 1 % | |
| 0.14 b) Toxicity after single exposure Substances with properties according to the hazard class Specific target organ toxicant single exposure (STOT-SE) category 2 (H371) | | | |
| ≤ 1 % | < 10 % | ≥ 10 % | |
| 0.15 a) Toxicity after repeated exposure Substances with properties according to the hazard class Specific target organ toxicant following repeated exposure (STOT-RE) category 1 (H372) | | | |
| ≤ 0.1 % | < 1 % | ≥ 1 % | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|-------------------------------|----------------------------------|---|
| 0.15 b) Toxicity after repeated exposure Substances with properties according to the hazard class Specific target organ toxicant following repeated exposure (STOT-RE) category 2 (H373) | | | |
| $\leq 1\%$ | $< 10\%$ | $\geq 10\%$ | |
| 0.16 Volatile organic compounds Substances which have an initial boiling point $< 250\text{ }^{\circ}\text{C}$ measured at a standard pressure of 101.3 kPa, and which meet the criteria for any of the indications of danger: Deadly, poisonous or harmful if inhaled (H330, H331, H332), May be fatal if swallowed and enters airways (H304), May cause drowsiness or dizziness (H336), May cause damage to organs (H371), May cause damage to organs through prolonged or repeated exposure (H373). | | | The initial boiling point is set based on Directive 2004/42 / EC. Concentration limits are set on the basis of industry agreement with the paint, varnishes and adhesives. |
| $\leq 1\%$ | $< 10\%$ | $\geq 10\%$ | |
| 0.17 a) Environmentally hazardous Substances with properties according to the hazard class Hazardous to the aquatic environment, Acute, category 1 (H400) | | | * Concentration Limit depends on the M value (Annex VI of the CLP Regulation (EC) No 1272/2008). ** Concentration Limit depends on the M value (Annex VI of the CLP Regulation (EC) No 1272/2008). Aggregation of the substances occurs when several substances with classification are present according to the CLP Regulation (EC) No 1272/2008, Annex 1, Section 4. |
| $< 2.5\%$ of individual substance, only if $M = 1$ * | $< 25\%$, only if $M = 1$ ** | $\geq 25\%$, only if $M = 1$ ** | |
| 0.17 b) Environmentally hazardous Substances with properties according to the hazard class Hazardous to the aquatic environment, Chronic, category 2 (H411) | | | * Aggregation of the substances occurs when several substances with classification are present according to the CLP Regulation (EC). |
| $\leq 2.5\%$ | $< 25\%*$ | $\geq 25%*$ | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|---------------------------|---------------------------|--|
| 0.17 c) Environmentally hazardous Substances with properties according to the hazard class Hazardous to the aquatic environment, Chronic, category 1 (H410) | | | * Concentration Limit depends on the M value (Annex VI of the CLP Regulation (EC) No 1272/2008). ** Concentration Limit depends on the M value (Annex VI of the CLP Regulation (EC) No 1272/2008). Aggregation of the substances occurs when several substances with classification are present according to the CLP Regulation, which also includes Chronic 2, H411. |
| <0.25% of individual substance. only if M = 1 * | < 2.5 %. only if M = 1 ** | ≥ 2.5 %. only if M = 1 ** | |
| 0.17 d) Environmentally hazardous Substances with properties according to the hazard class Hazardous to the aquatic environment, Chronic, category 4 (H413) | | | * Aggregation of the substances occurs when several substances with classification are present according to the CLP Regulation (EC) No 1272/2008, which also includes H410, H411 and H412. |
| ≤ 2.5 % of individual substance | < 25%* | ≥ 25 %* | |
| 0.18 Potential PBT / vPvB | | | Substances that fulfill the PRIO guide's criteria for potential PBT / vPvB substances. (www.kemi.se). |
| < 0.1 % | -- | -- | |
| 0.19 Substances and substance groups of particular concern, according to Table 1 (see page 25) | | | Includes arsenic compounds, halogenated organic compounds, organic tin compounds and biocides added to the products (surface treatment) in order to achieve an antibacterial effect. |
| Prohibited | -- | -- | |

1. Used materials and raw materials

(BPD 3: Chapter 5. Production phase)

| Recommended | Accepted | To be Avoided | Information/Reference |
|---|---|---------------|--|
| 1.1 Documentation on used materials | | | <p>Documentation about content is a classification criteria for chemical content in the Swedish classification scheme "Miljöbyggnad"</p> <p>Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>Any of the following apply:</p> <ul style="list-style-type: none"> All raw materials and other inputs used for production are accounted for as "cradle to gate" as required in BVD3 Information on raw materials is completely filled in (in accordance with older version of BVD) | <p>Any of the following apply:</p> <ul style="list-style-type: none"> All raw materials and other inputs used for production are accounted for as "gate to gate" as required in BVD3. Raw materials are partially accounted for Raw materials are not reported | -- | |
| 1.2 Renewable raw materials | | | <p>Criteria in line with:</p> <ul style="list-style-type: none"> National environment target "Good built environment (reduced use of non-renewable resources) <p>Criteria based on:</p> <ul style="list-style-type: none"> Azar (1996) – basis for definition of sustainable use. Guinée (2002) – basis for definition of renewable raw materials. <p>Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>≥ 50% renewable raw materials</p> | <ul style="list-style-type: none"> 50% non-renewable raw materials with sustainability ratio ≤ 2 Non-renewable raw material with no information about sustainability ratio but where no known facts indicate limited access. Information on renewable raw materials is missing | -- | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|--|---------------|--|
| 1.3 Percentage recovered material | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Kretsloppsrådet (2000) • Priority area. Kretsloppsrådet (Environment program 2010) • National environment target “Good built environment” (reduced use of non renewable resources) Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| Recovered material > 50% | Recovered material <50% or Criteria cannot be assessed since there is no information available about percentage recovered material. | -- | |
| 1.4 Sustainable wood | | | Criteria in line with and based on recommendations from World Wide Fund for Nature (WWF) Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| The product is made from wood with documented sustainable forestry. Separate certificates or documentation is required. | The product is made from wood where sustainability information is missing. | -- | |

2. Production

(BPD3: Chapter 5 Production phase)

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|--|---------------|---|
| 2.1 Discharge to ground, water or air | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Boverket (2009) • National environment target “Reduced climate impact” Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| Information about discharge (type and amount) is reported. | Information about discharge is partly reported or No information about discharge. | -- | |
| 2.2 Energy consumption for production | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Boverket (2009) • National environment target “Reduced climate impact” Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| Complete information is reported about energy consumption (type and amount). | Information about energy consumption is partly reported or No information available about energy consumption. | -- | |
| 2.3 Recovery of waste products | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Boverket (2009) Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| Information about waste products (waste code, amount and proportion of material recovery and energy recovery) is reported. | Information about waste products is partly reported or No information available about waste products. | -- | |

3. Distribution and packaging

(BPD 3: Chapter 3. Product information and Chapter 6. Distribution of finished product)

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|---|---------------|---|
| 3.1 Transport in manufacturing | | | Criteria in line with: <ul style="list-style-type: none"> National environment target “Reduced climate impact” Considerable environment impact, Boverket (2009) Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| Information about transports (types and proportions) is reported. | Information about transports is partly reported or No information available about transports. | -- | |
| 3.2 Country of final production | | | Criteria in line with: <ul style="list-style-type: none"> National environment target “Reduced climate impact” Considerable environment impact, Boverket (2009) Information enables consumers prioritizing of locally produced products. |
| Information about country of final production is reported. | No information available about country of final production. | -- | |
| 3.3 Packaging for distribution | | | Criteria in line with: <ul style="list-style-type: none"> Priority area. Kretsloppsrådet (Environment program 2010) Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| Information about packaging is reported or Transport in bulk and no packaging material is used. | Information about packaging is partly reported or No information about packaging is available. | -- | |

4. Usage phase

(BPD 3: Chapter 8 Usage phase)

| Recommended | Accepted | To be Avoided | Information/Reference |
|---|---|---|--|
| 4.1 Discharge to ground, water or air | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Kretsloppsrådet (2000) • Priority area. Kretsloppsrådet (Environment program 2010) • National environment target “Nontoxic environment” Criteria deals with copper and zinc in contact with water. Information is not mandatory in BPD3 but can be given as “Other information”. |
| -- | -- | Risk of leaching of copper, zinc or silver. | |
| 4.2 Lifetime for product in use | | | Criteria in line with: Priority area. Kretsloppsrådet (Environment program 2010) |
| Lifetime of the product is approximately 25 years or longer. | Lifetime of the product is less than 25 years. | No information available about lifetime. | |
| 4.3 Energy use | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Kretsloppsrådet (2000) • Priority area. Kretsloppsrådet (Environment program 2010) • Swedish system “Environment classification of buildings” • National environment target “Good built environment” • “Ecodesign –directive” (2005/32/EG) Directive on energy performance in buildings (2002/91/EG) • The Commission’s plan for energy efficiency (2007-2012) Applicable only for items where Energy Labeling exists. |
| The product requires energy for use. Energy Labeling class A or better. | The product requires energy for use. Energy Labeling class B or lower. or Product requires energy for use. No information about Energy Labeling. | -- | |

5. Waste and Demolition

(BPD 3: Chapter 9. Demolition and Chapter 10 Waste management)

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|---|---------------|---|
| 5.1 Information about dismantling | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Kretsloppsrådet (2000) • Priority area. Kretsloppsrådet (Environment program 2010) Information is not mandatory in BPD3, whereupon the assessment <i>To be Avoided</i> cannot be given. |
| The product is prepared for dismantling. | The product is not prepared for dismantling or No information available about dismantling. | -- | |
| 5.2 Reuse | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Kretsloppsrådet (2000) • Priority area. Kretsloppsrådet (Environment program 2010) • National environment target "Good built environment" • Waste directive, Waste hierarchy (2008/98/EG) *Assessment of possible reuse is based on current technology. |
| ≥ 50 % of the product can be reused* | ≥ 50 % of the product cannot be reused* or No information is available and it cannot be obtained from knowledge of the product | -- | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|---|---|--|---|
| 5.3 Material recovery | | | Criteria in line with: <ul style="list-style-type: none"> • Considerable environment impact, Kretsloppsrådet (2000) • Priority area. Kretsloppsrådet (Environment program 2010) • National environment target “Good built environment” • Waste directive, Waste hierarchy (2008/98/EG) *Assessment of possible recovery based on current technology. |
| The product can be $\geq 50\%$ material recovered* | The product can be $\geq 50\%$ recovered* only as aggregates or The product can be $\geq 50\%$ energy recovered* | The product cannot be $\geq 50\%$ material- or energy recovered* or No information is available and it cannot be obtained from knowledge of the material | |
| 5.4 Hazardous waste from use or construction phase | | | Criteria in line with: <ul style="list-style-type: none"> • National environment target “Nontoxic environment” • Swedish EPA (2006) Summary of waste in Sweden. |
| Hazardous waste does not arise due to the product. | Hazardous waste arises due to the product and information about handling is given in accordance with current legislation | Hazardous waste arises due to the product but information about handling in accordance with current legislation is missing or Information about hazardous waste is missing or incomplete. | |
| 5.5 Hazardous waste from demolition | | | Criteria in line with: <ul style="list-style-type: none"> • National environment target “Nontoxic environment” • Swedish EPA (2006) Summary of waste in Sweden. |
| Item at end of life not classified as hazardous waste | Item at end of life classified as hazardous waste and information about handling is given in accordance with current legislation or Item, or part of item, at end of life classified as hazardous waste and shall be handled as electronic waste | Item at end of life classified as hazardous waste and information about handling is missing or Information about hazardous waste is missing or incomplete | |

6. Indoor environment

(BPD 3: Chapter 11 Indoor environment)

Indoor environmental assessment only applies to relevant products for indoor use e.g., coating materials or applications which through emissions can reach inside air. Referred products: wallboard, floor covering, sealing, paint, wallpaper, caulking, adhesive and putty. Products of stone, brick, wall tile, floor tile, mosaic tile, glass and metal on interior surfaces are not assessed. However, necessary surface layer and base treatment must be assessed according to the criteria below.

| Recommended | Accepted | To be Avoided | Information/Reference |
|--|---|---|--|
| 6.1 Documentation about emissions | | | Criteria in line with: <ul style="list-style-type: none"> National environment targets “Nontoxic environment” and “Good Built Environment” Emissions measured according to standard method e.g. ISO 16000-9 or 16000-10 combined with standard method for sample extraction ISO 16000-11 |
| Information about emission rate is available for the five highest peaks of VOC or The surface material is stone, brick, wall tile, floor tile, mosaic, glass or metal | Information about VOC is available. | No information about VOC. | |
| 6.2 Formaldehyde | | | Criteria in line with: <ul style="list-style-type: none"> National environment targets “Nontoxic environment” and “Good Built Environment” Emission rate for formaldehyde measured according to standard method SS-EN-717-1:2004 or equivalent. Levels in accordance with Finnish material classification M1 and KIFS 2008:2 §§19-25 |
| Emission rate for formaldehyde <0.05 mg/m ² h or Formaldehyde concentration <0.05 mg/m ³ | Emission rate for formaldehyde 0.05-0.124 mg/m ² h or Formaldehyde concentration 0.05-0.124 mg/m ³ | Emission rate for formaldehyde >0.124 mg/m ² h or Formaldehyde concentration >0.124 mg/m ³ | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|---|---|---|--|
| 6.3 Assessment of emissions | | | Criteria in line with: <ul style="list-style-type: none"> National environment targets “Nontoxic environment” and “Good Built Environment” Measured according to chamber method SS-EN 13419-1/-2 and analysis ISO 16000-6. Levels in accordance with Finnish material classification M1and M2 or CESAT. Measurements made within 26 weeks. |
| Emission rate for TVOC <200 µg/m ² h or TVOC concentration <200 µg/m ³ | Emission rate for TVOC 200 - 400 µg/m ² h or TVOC concentration 200 - 400 µg/m ³ | Emission rate for TVOC >400 µg/m ² h or TVOC concentration <400 µg/m ³ | |
| 6.4 Electric fields | | | Criteria in line with: <ul style="list-style-type: none"> National environment targets “Good Built Environment” Environmental manual. Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given. |
| Electric field levels stated or Product cannot generate electric field or Electrical field in facility <10V/m | No information available about electric fields. | -- | |
| 6.5 Magnetic fields | | | Criteria in line with: <ul style="list-style-type: none"> National environment targets “Good Built Environment” Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given. |
| Magnetic field levels stated or Product cannot generate magnetic fields or Magnetic flux density in facility is <0.2 µT | No information available about magnetic fields. | -- | |

| Recommended | Accepted | To be Avoided | Information/Reference |
|--------------------------------|--------------------------------------|---------------|---|
| 6.6 Noise | | | <p>Criteria in line with:</p> <ul style="list-style-type: none"> • National environment targets “Good Built Environment” <p>Applies only to items that generate noise e.g. fans, pumps, refrigerators, fridges etc but not to items that indirectly cause noise e.g. ventilators etc.</p> <p>Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| Information about noise stated | No information available about noise | -- | |

Byggvarubedömningen weighting of criteria

Assessment according to Byggvarubedömningen's criteria is weighted into a total assessment. This is done so that any product must meet two conditions for *accepted* and three conditions for *recommended*. The conditions are specified in the table below showing what must be fulfilled before a product is given any total assessment. Unless both conditions for *accepted* are fulfilled the product will be assessed *to be avoided*.

| Recommended | Accepted | To be avoided |
|---|--|---|
| <p>All conditions below must be met for an overall assessment <i>recommended</i>:</p> <ul style="list-style-type: none"> • All content criteria are assessed <i>recommended</i>. • No life cycle criteria is assessed <i>to be avoided</i>. • At least 50%, of relevant criteria for any product, are assessed <i>recommended</i>. | <p>All conditions below must be met for an overall assessment <i>accepted</i>:</p> <ul style="list-style-type: none"> • No content criteria may be assessed <i>to be avoided</i>. • Maximum one life cycle criteria assessed <i>to be avoided</i>. | <p>If any condition below is met the overall assessment will be <i>to be avoided</i>:</p> <ul style="list-style-type: none"> • One or more content criteria assessed <i>to be avoided</i>. • Two or more life cycle criteria assessed <i>to be avoided</i>. |

Byggvarubedömningen's content criteria are unconditional. This means that neither assessment of content nor totally for a product can ever be better than the assessment of the worst content criteria.

Assessment is shown with a green, yellow or red arrow pointing up, sideways or down respectively. On the product card the overall assessment is shown with a big arrow and the content assessment with a small arrow.




| |
|--|
|  Recommended  Accepted  To be avoided |
|--|

Table 1- Substances and substance groups of particular concern

Substances that should not be found¹ in products with the assessment Recommended.
 To be specified in "Certificate of substance content and concentration".

| Substance Group / Substance | Example of properties |
|--|--|
| 1. Arsenic and its compounds ² | Tox, Harmful to the environment |
| 2. Brominated flame retardants | Pot. PBT/vPvB, PBT/vPvB |
| 3. PFOA (perfluorooctaneacids) | Persistent, Bioaccumulating, probable Repr |
| 4. PFOS (perfluorooctane sulfonate) | Pot. PBT/vPvB, PBT/vPvB |
| 5. Organotin compounds | Pot. PBT/vPvB, PBT/vPvB, Tox, Harmful to the environment |
| 6. Biocides added to the products (surface treatment) in order to achieve a disinfectant or antibacterial effect | Tox, Harmful to the environment |

¹ These substances should not have been added to the product at any time during production and shall not be formed through reaction between substances in the product.

² Arsenic, or arsenic compounds, should not have been added to the product. Such substances present as pollution in used raw material may not exceed 10 mg/kg. The concentration is set in accordance with regulatory requirements for soil quality so that accepted products will not add to background levels when used or deposited (e.g. sewage sludge according to SFS 1998:944 §20). The same concentration limit is also found in the overall guidelines for less sensitive land use (MKM) from the Swedish Environmental Protection Agency.