

BYGGVARUBEDÖMNINGEN™

Building Material Assessment Assessment Criteria

Approved by the Board of Directors

Date 2013-08-26

Building Material Assessment Criteria

| Recommended | Accepted | To be Avoided – alternative must be explored | Information/Reference |
|--|---|---|---|
| 0 Declaration of content <i>Substances present in product are assessed based on their respective properties, not eventual classification in mixture.</i> | | | |
| 0.0 BASTA -- | BASTA Information showing that product is registered in BASTA. | BASTA -- | www.bastaonline.se Information about product being registered in BASTA and BASTA Beta is given but does not affect the assessment. |
| 0.1 Documentation Certificate of substance content and levels exists <i>See Appendix 1 for criteria and list of specially focused substances.</i> | Documentation Certificate of substance content and levels does not exist. | Documentation Substance content information is incomplete. | |
| 0.2 Category 1 or 2 carcinogens (R45, R49) ≤ 0.01 % of individual substance. | Category 1 or 2 carcinogens (R45, R49) 0.01 % < conc. < 0.1 % of individual substance | Category 1 or 2 carcinogens (R45, R49) ≥ 0.1 % of individual substance | |
| 0.3 Category 3 carcinogen (R40) ≤ 0.1 % of individual substance | Category 3 carcinogen (R40) 0.1 % < conc. < 1 % of individual substance | Category 3 carcinogen (R40) ≥ 1 % of individual substance | |
| 0.4 Category 1 or 2 mutagen (R46) ≤ 0.01 % of individual substance | Category 1 or 2 mutagen (R46) 0.01 % < conc. < 0.1 % of individual substance | Category 1 or 2 mutagen (R46) ≥ 0.1 % of individual substance | |
| 0.5 Category 3 mutagen (R68) ≤ 0.1 % of individual substance | Category 3 mutagen (R68) 0.1 % < conc. < 1 % of individual substance | Category 3 mutagen (R68) ≥ 1 % of individual substance | |

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| <p>0.6 Category 1 or 2 reproductive toxins (R60 and/or R61)</p> <p>≤ 0.01 % of individual substance Specially focused substances according to Appendix 1: 2, 3, 4, 5</p> | <p>Category 1 or 2 reproductive toxins (R60 and/or R61)</p> <p>0.01 % < conc. < 0.5 % of individual substance</p> | <p>Category 1 or 2 reproductive toxins (R60 and/or R61)</p> <p>≥ 0.5 % of individual substance</p> | |
| <p>0.7 Category 3 reproductive toxins (R62 and/or R63)</p> <p>≤ 0.1 % of individual substance</p> | <p>Category 3 reproductive toxins (R62 and/or R63)</p> <p>0.1% < conc. < 5 % of individual substance</p> | <p>Category 3 reproductive toxins (R62 and/or R63)</p> <p>≥ 5 % of individual substance</p> | |
| <p>0.8 May cause harm to breastfed babies(R64)</p> <p>≤ 0.1 % of individual substance</p> | <p>May cause harm to breastfed babies (R64)</p> <p>0.1 % < conc. < 1 % of individual substance</p> | <p>May cause harm to breastfed babies (R64)</p> <p>≥ 1 % of individual substance</p> | |
| <p>0.9 Allergenic with inhalation or skin contact (R42, R43)</p> <p>≤ 0.01 % of individual substance</p> | <p>Allergenic with inhalation or skin contact (R42, R43)</p> <p>0.01 % < conc. < 1 % of individual substance</p> | <p>Allergenic with inhalation or skin contact (R42, R43)</p> <p>≥ 1 % of individual substance</p> | |
| <p>0.10 Very high acute toxicity by inhalation, skin contact and/or swallowing (R26, R27, R28)</p> <p>≤ 0.01 % Specially focused substances according to Appendix 1: 1, 5</p> | <p>Very high acute toxicity by inhalation, skin contact and/or swallowing (R26, R27, R28)</p> <p>0.01 % < conc.< 1 %</p> | <p>Very high acute toxicity by inhalation, skin contact and/or swallowing (R26, R27, R28)</p> <p>≥ 1 %</p> | |

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| <p>0.11 Very high acute toxicity; danger of very serious irreversible effects through inhalation, skin contact or swallowing (R39 combined with R26, R27 and/or R28)</p> <p>≤ 0.01 % of individual substance Specially focused substances according to Appendix 1: 1, 5</p> | <p>Very high acute toxicity; danger of very serious irreversible effects through inhalation, skin contact or swallowing (R39 combined with R26, R27 and/or R28)</p> <p>0.01 % < conc.< 1 % of individual substance</p> | <p>Very high acute toxicity; danger of very serious irreversible effects through inhalation, skin contact or swallowing (R39 combined with R26, R27 and/or R28)</p> <p>≥ 1 % of individual substance</p> | |
| <p>0.12 Toxic by inhalation, skin contact and/or swallowing (R23, R24, R25)</p> <p>≤ 0.01 % Specially focused substances according to Appendix 1: 1, 5</p> | <p>Toxic by inhalation, skin contact and/or swallowing (R23, R24, R25)</p> <p>0.01 % < conc.< 25 %</p> | <p>Toxic by inhalation, skin contact and/or swallowing (R23, R24, R25)</p> <p>≥ 25 %</p> | |
| <p>0.13 Toxic; danger of very serious irreversible effects through inhalation, skin contact or swallowing (R39 combined with R23, R24 and/or R25)</p> <p>≤ 0.01 % of individual substance Specially focused substances according to Appendix 1: 1, 5</p> | <p>Toxic; danger of very serious irreversible effects through inhalation, skin contact or swallowing (R39 combined with R23, R24 and/or R25)</p> <p>0.01 % < conc.< 10 % of individual substance</p> | <p>Toxic; danger of very serious irreversible effects through inhalation, skin contact or swallowing (R39 combined with R23, R24 and/or R25)</p> <p>≥ 10 % of individual substance</p> | |
| <p>0.14 High chronic toxicity; danger of serious damage to health by prolonged exposure through inhalation, skin contact or swallowing (R48 combined with R23, R24 and/or R25)</p> <p>≤ 0.01 % of individual substance Specially focused substances according to Appendix 1: 1, 5</p> | <p>High chronic toxicity; danger of serious damage to health by prolonged exposure through inhalation, skin contact or swallowing (R48 combined with R23, R24 and/or R25)</p> <p>0.01 % – 10 % of individual substance</p> | <p>High chronic toxicity; danger of serious damage to health by prolonged exposure through inhalation, skin contact or swallowing (R48 combined with R23, R24 and/or R25)</p> <p>≥ 10 % of individual substance</p> | |

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| <p>0.15 Volatile organic chemical substances; Initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa as well as properties in accordance with the criteria for risk phrase R48 combined with R20 (Harmful: Danger of serious damage to health by prolonged exposure through inhalation) or R20 (Harmful by inhalation) or R23 (Toxic by inhalation) or R65 (harmful: may cause lung damage if swallowed) or R67 (vapors may cause drowsiness and dizziness).</p> <p>≤ 1 %</p> | <p>Volatile organic chemical substances; Initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa as well as properties in accordance with the criteria for risk phrase R48 combined with R20 (Harmful: Danger of serious damage to health by prolonged exposure through inhalation) or R20 (Harmful by inhalation) or R23 (Toxic by inhalation) or R65 (harmful: may cause lung damage if swallowed) or R67 (vapors may cause drowsiness and dizziness).</p> <p>1 % < konc. < 10 %</p> | <p>Volatile organic chemical substances; Initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa as well as properties in accordance with the criteria for risk phrase R48 combined with R20 (Harmful: Danger of serious damage to health by prolonged exposure through inhalation) or R20 (Harmful by inhalation) or R23 (Toxic by inhalation) or R65 (harmful: may cause lung damage if swallowed) or R67 (vapors may cause drowsiness and dizziness).</p> <p>≥ 10 %</p> | <p>Concentration limits have been set based on industry agreements for paint, varnish and adhesives.</p> |
| <p>0.16 Very persistent and very bioaccumulating organic substances</p> <p>≤ 0.001 % of individual substance</p> <p><i>Specially focused substances according to Appendix 1: 2, 3, 4, 5</i></p> | <p>Very persistent and very bioaccumulating organic substances</p> <p>0.001 % < conc. < 0.1 % of individual substance</p> | <p>Very persistent and very bioaccumulating organic substances</p> <p>≥ 0.1 % of individual substance</p> | <p>Substances with</p> <p>1) half-life >60 days in marine water or freshwater or >180 days in marine- or freshwater sediment or >180 days in soil</p> <p>and</p> <p>2) BCF (Bio Concentration Factor) >5000</p> <p>Criteria for PBT / vPvB according to PRIO (www.kemi.se),</p> |

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| <p>0.17 Persistent, bioaccumulating and toxic organic substances</p> <p>≤ 0.001 % of individual substance <i>Specially focused substances according to Appendix 1: 2, 3, 4, 5</i></p> | <p>Persistent, bioaccumulating and toxic organic substances</p> <p>0.001 % < conc. < 0.1 % of individual substance</p> | <p>Persistent, bioaccumulating and toxic organic substances</p> <p>≥ 0.1 % of individual substance</p> | <p>Substances with</p> <p>1) Half-life >60 days in marine water or >40 days in freshwater or >180 days in marine sediment or >120 days in freshwater sediment or >120 days in soil and</p> <p>2) BCF (Bio Concentration Factor) >2000 and</p> <p>3) Chronic NOEC (No Effect Concentration) <0.01 mg/l or 30 mg/kg food or classification T; R48 or X_n; R48 or R64</p> <p>Criteria for PBT / vPvB according to PRIO (www.kemi.se),</p> |
| <p>0.18 Pure substance or compound of cadmium</p> <p>Chemical products: <i>Pure cadmium or its compounds must not be present irrespective of concentration (zero tolerance)</i></p> <p>Other products: ≤ 0.001 %</p> | <p>Pure substance or compound of cadmium</p> <p>0.001 % < conc. < 0.01 %</p> | <p>Pure substance or compound of cadmium</p> <p>≥ 0.01 %</p> | |
| <p>0.19 Pure substance or compound of lead</p> <p>Chemical products: <i>Pure lead (Pb) or its compounds must not be present irrespective of concentration (zero tolerance)</i></p> <p>Other products: ≤ 0.001 %</p> | <p>Pure substance or compound of lead</p> <p>0.001 % < conc. < 0.1 %</p> | <p>Pure substance or compound of lead</p> <p>≥ 0.1 %</p> | |

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| <p>0.20 Pure substance or compound of mercury</p> <p>Prohibited</p> <p>Mercury (or compound of mercury) has not been used in, or added to, the product. Contamination < 2.5 mg/kg*.</p> | <p>Pure substance or compound of mercury</p> <p>Prohibited</p> <p>Mercury (or compound of mercury) has not been used in, or added to, the product. Contamination 0.25 – 2.5 mg/kg*.</p> | <p>Pure substance or compound of mercury</p> <p>Presence</p> <p>Mercury (or compound of mercury) has not been used in, or added to, the product. Contamination \geq 2.5 mg/kg*.</p> | |
| <p>* 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.</p> <p>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.</p> | | | |
| <p>0.21 Harmful to the ozone layer; Ozone Depletion Potential (ODP) >0 (R59)</p> <p>\leq 0.01 % of individual substance</p> | <p>Harmful to the ozone layer; Ozone Depletion Potential (ODP) >0 (R59)</p> <p>0.01 % < conc. < 0.1 % of individual substance</p> | <p>Harmful to the ozone layer; Ozone Depletion Potential (ODP) >0 (R59)</p> <p>\geq 0.1 % of individual substance</p> | |
| <p>0.22 Very toxic to aquatic organisms (R50)</p> <p>Concentration limit < 0.1 x Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14. Individual substance.</p> <p>Specially focused substances according to Appendix 1: 1, 5</p> | <p>Very toxic to aquatic organisms (R50)</p> <p>Concentration limit 0.1 x Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14 - Concentration limit < Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14. Individual substance.</p> | <p>Very toxic to aquatic organisms (R50)</p> <p>Concentration limit \geq Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14. Individual substance.</p> | <p>Concentration limits are set so that no products assessed as Recommended or Accepted are labeled with the danger symbols toxic or dangerous for the environment.</p> |

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| <p>0.23 Toxic to aquatic organisms; toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment (R51/53)</p> <p>< 0.1 %</p> <p>Specially focused substances according to Appendix 1: 1, 5</p> | <p>Toxic to aquatic organisms; toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment (R51/53)</p> <p>0.1 % < conc. < 25 %</p> | <p>Toxic to aquatic organisms; toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment (R51/53)</p> <p>≥ 25 %</p> | <p>Concentration limits are set so that no products assessed as Recommended or Accepted are labeled with the danger symbols toxic or dangerous for the environment</p> |
| <p>0.24 Environmentally hazardous,/long-term effects; very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53)</p> <p>Concentration limit < 0.1 x Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14. Individual substance. Specially focused substances according to Appendix 1: 1, 5</p> | <p>Environmentally hazardous,/long-term effects; very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53)</p> <p>Concentration limit 0.1 x Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14 - Concentration limit < Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14. Individual substance.</p> | <p>Environmentally hazardous,/long-term effects; very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53)</p> <p>Concentration limit ≥ Value of L(E)C₅₀ according to KIFS 2005:7 (with most recent amendment) table 13a or 14. Individual substance.</p> | <p>Concentration limits are set so that no products assessed as Recommended or Accepted are labeled with the danger symbols toxic or dangerous for the environment.</p> |
| <p>0.25 Environmentally hazardous/long-term effects; may cause long-term adverse effects in the aquatic environment (R53)</p> <p>< 1 %</p> <p>Specially focused substances according to Appendix 1: 1, 5</p> | <p>Environmentally hazardous/long-term effects; may cause long-term adverse effects in the aquatic environment (R53)</p> <p>1 % < conc. < 25 %</p> | <p>Environmentally hazardous/long-term effects; may cause long-term adverse effects in the aquatic environment (R53)</p> <p>≥ 25 %</p> | <p>Concentration limits are set so that no products assessed as Recommended or Accepted are labeled with the danger symbols toxic or dangerous for the environment</p> |
| <p>0.26 Potential PBT / vPvB</p> <p>≤ 0.01 % of individual substance</p> <p><i>Specially focused substances according to Appendix 2: 2, 3, 4, 5.</i></p> | <p>Potential PBT / vPvB</p> <p>--</p> | <p>Potential PBT / vPvB</p> <p>--</p> | <p>Criteria for potential PBT / vPvB according to PRIO (www.kemi.se),</p> |

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| <p>0.27 Endocrine disruptors</p> <p>≤ 0.01% of individual substance</p> <p>Substances included in CAT 1, CAT 2 or CAT 3 according to the EU EDC Database or EDC substances in SIN-list database from Chemsec².</p> <p><i>Specially focused substances according to Appendix 2: 2, 3, 4, 5.</i></p> | <p>Endocrine disruptors</p> <p>Substances included in CAT 1 or CAT 2 according to the EU EDC Database.</p> <p>0.01% < conc. < 0.1% of individual substance</p> | <p>Endocrine disruptors</p> <p>Substances included in CAT 1 or CAT 2 according to the EU EDC Database.</p> <p>≥0.1% of individual substance</p> | <p>1. http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm</p> <p>2. http://www.chemsec.org/</p> |
| <p>1. Used materials and raw materials (BPD 3: Chapter 5. Production phase)</p> | | | |
| <p>1.1 Documentation on used materials</p> <p>All raw materials and other inputs used for production are accounted for “cradle to gate” as required in BVD3</p> <p>or</p> <p>Information on raw materials completely filled in (in accordance with older version of BVD (EPD))</p> | <p>Documentation on used materials</p> <p>All raw materials and other inputs used for production are accounted for “gate to gate” as required in BVD3</p> <p>or</p> <p>Information on raw materials partially filled in</p> <p>or</p> <p>Information on raw materials is missing</p> | <p>Documentation on used materials</p> | <p>Comment: Documentation about content is a classification criteria for chemical content in the Swedish classification scheme “Miljöbyggnad”</p> <p>Comment</p> <p>Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |

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| <p>1.2 Renewable raw materials ≥ 50% renewable raw materials</p> | <p>Renewable raw materials ≥ 50% non-renewable raw materials with good access (sustainability ratio ≤ 1) or ≥ 50% non-renewable raw materials with near good access (sustainability ratio ≤ 2) or Non-renewable raw material with no information about sustainability ratio but where no known facts indicate limited access. or Information on renewable raw materials is missing</p> | <p>Renewable raw materials -</p> | <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: Azar (1996) – basis for definition of sustainable use. Guinée (2002) – basis for definition of renewable raw materials.</p> <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>1.3 Percentage recovered material Recovered material > 50%</p> | <p>Percentage recovered material Recovered material <50% or Criteria cannot be assessed since there is no information available about percentage recovered material</p> | <p>Percentage recovered material --</p> | <p>Criteria in line with:</p> <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) <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>1.4 Sustainable wood Item made from wood with documented sustainable forestry</p> | <p>Sustainable wood Item made from wood where sustainability information is missing</p> | <p>Sustainable wood --</p> | <p>Criteria in line with and based on: Recommendations from World Wide Fund for Nature (WWF)</p> <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>2. Production (BPD3: Chapter 5 Production phase)</p> | | | |

| Recommended | Accepted | To be Avoided – alternative must be explored | Information/Reference |
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| <p>2.1 Discharge to ground, water or air</p> <p>Information presented about discharge (type and amount)</p> | <p>Discharge to ground, water or air</p> <p>Information presented in part about discharge or No information about discharge</p> | <p>Discharge to ground, water or air</p> <p>--</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> • Considerable environment impact, Boverket (2009) • National environment target “Reduced climate impact” <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>2.2 Energy consumption for production</p> <p>Complete information presented about energy consumption (type and amount)</p> | <p>Energy consumption for production</p> <p>Information presented in part about energy consumption or No information available about energy consumption</p> | <p>Energy consumption for production</p> <p>--</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> • Considerable environment impact, Boverket (2009) • National environment target “Reduced climate impact” <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>2.3 Recovery of waste products</p> <p>Information presented about waste products (waste code, amount and proportion of material recovery and energy recovery)</p> | <p>Recovery of waste products</p> <p>Information presented in part about waste products or No information available about waste products</p> | <p>Recovery of waste products</p> <p>--</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> • Considerable environment impact, Boverket (2009) <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>3. Distribution and packaging (BPD 3: Chapter 3. Product information and Chapter 6. Distribution of finished product)</p> | | | |
| <p>3.1 Transport in manufacturing</p> <p>Information presented about transports (types and proportions)</p> | <p>Transport in manufacturing</p> <p>Information presented in part about transports or No information available about transports</p> | <p>Transport in manufacturing</p> <p>--</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> • National environment target “Reduced climate impact” • Considerable environment impact, Boverket (2009) <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |

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| 3.2 Country of final production Information presented about country of final production | Country of final production No information available about country of final production. | Country of final production -- | Mandatory information in BPD3 Criteria in line with: <ul style="list-style-type: none"> National environment target “Reduced climate impact” Considerable environment impact, Boverket (2009) Comment Information enables consumers prioritizing of locally produced products. |
| 3.3 Packaging for distribution Information presented about packaging or Transport in bulk and no packaging material is used | Packaging for distribution Information presented in part about packaging or No information available on packaging | Packaging for distribution -- | Criteria in line with: <ul style="list-style-type: none"> Priority area. Kretsloppsrådet (Environment program 2010) Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given. |
| 5. Usage phase (BPD 3: Chapter 8 Usage phase) | | | |
| 5.2 Discharge to ground, water or air -- | Discharge to ground, water or air -- | Discharge to ground, water or air Risk of leaching of copper, zinc or silver. | 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” Comment: Criteria deals with copper and zinc in contact with water. Information is not mandatory in BPD3 but can be given as “Other information”. |
| 5.3 Lifetime for product in use Lifetime of item is approximately 25 years or longer | Lifetime for product in use Lifetime of item is less than 25 years | Lifetime for product in use No information available about lifetime | Mandatory information in BPD3 Criteria in line with: <ul style="list-style-type: none"> Priority area. Kretsloppsrådet (Environment program 2010) |

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| <p>5.4 Energy use</p> <p>Item requires energy for use. Information presented about Energy Labeling class A or better</p> | <p>Energy use</p> <p>Item requires energy for use. Information presented about Energy Labeling class B or lower.</p> <p>or</p> <p>Product requires energy for use. No information about Energy Labeling .</p> | <p>Energy use</p> <p>--</p> | <p>Mandatory information in BPD3</p> <p>Criteria in line with:</p> <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) <p>Comment: Applicable only for items where Energy Labeling exists.</p> |
| <p>6. Waste and Demolition (BPD 3: Chapter 9. Demolition and Chapter 10 Waste management)</p> | | | |
| <p>6.1 Information about dismantling</p> <p>Item prepared for dismantling</p> | <p>Information about dismantling</p> <p>Item is not prepared for dismantling</p> <p>or</p> <p>No information available about dismantling</p> | <p>Information about dismantling</p> <p>---</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> • Considerable environment impact, Kretsloppsrådet (2000) • Priority area. Kretsloppsrådet (Environment program 2010) <p>Comment Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |

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| <p>6.2 Reuse The item* can be $\geq 50\%$ reused</p> | <p>Reuse The item cannot be $\geq 50\%$ reused or No information is available and it cannot be found from knowledge of the material</p> | <p>Reuse --</p> | <p>Mandatory information in BPD3 Criteria in line with:</p> <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) <p>Comment: *Assessment of possible reuse based on current technology.</p> |
| <p>6.3 Material recovery Item* can be $\geq 50\%$ material recovered</p> | <p>Material recovery Item* can be $\geq 50\%$ recovered only as aggregates or Item* can be $\geq 50\%$ energy recovered</p> | <p>Material recovery Item* cannot be $\geq 50\%$ material- or energy recovered or No information is available and it cannot be found from knowledge of the material</p> | <p>Mandatory information in BPD3 Criteria in line with:</p> <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) <p>Comment: *Assessment of possible recovery based on current technology.</p> |

| Recommended | Accepted | To be Avoided – alternative must be explored | Information/Reference |
|---|--|--|---|
| <p>6.4 Hazardous waste from use or construction phase</p> <p>Hazardous waste does not arise due to the product</p> | <p>Hazardous waste from use or construction phase</p> <p>Hazardous waste arises due to the product and information about handling is given in accordance with current legislation</p> | <p>Hazardous waste from use or construction phase</p> <p>Hazardous waste arises due to the product but information about handling in accordance with current legislation is missing</p> <p>or</p> <p>Information about hazardous waste is missing or incomplete.</p> | <p>Mandatory information in BPD3</p> <p>Criteria in line with:</p> <ul style="list-style-type: none"> • National environment target “Nontoxic environment” • Swedish EPA (2006) Summary of waste in Sweden. |
| <p>6.5 Hazardous waste from demolition</p> <p>Item at end of life not classified as hazardous waste</p> | <p>Hazardous waste from demolition</p> <p>Item at end of life classified as hazardous waste and information about handling is given in accordance with current legislation</p> <p>or</p> <p>Item, or part of item, at end of life classified as hazardous waste and shall be handled as electronic waste</p> | <p>Hazardous waste from demolition</p> <p>Item at end of life classified as hazardous waste and information about handling is missing</p> <p>or</p> <p>Information about hazardous waste is missing or incomplete</p> | <p>Mandatory information in BPD3</p> <p>Criteria in line with:</p> <ul style="list-style-type: none"> • National environment target “Nontoxic environment” • Swedish EPA (2006) Summary of waste in Sweden. |

8. Indoor environment (BPD 3: Chapter 11 Indoor environment)

Indoor environmental assessment only applies to relevant goods 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.

The actual materials 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.

| | | | |
|---|---|---|---|
| <p>8.2 Documentation about emissions</p> <p>Information about emission rate is available for the five highest peaks of VOC</p> <p>or</p> <p>The surface material is stone, brick, wall tile, floor tile, mosaic, glass or metal</p> | <p>Documentation about emissions</p> <p>Information about VOC is available</p> | <p>Documentation about emissions</p> <p>No information about VOC</p> | <p>Mandatory information in BPD3</p> <p>Criteria in line with:</p> <ul style="list-style-type: none"> National environment targets "Nontoxic environment" and "Good Built Environment" <p>Comment:</p> <p>Emissions measured according to standard method e.g. ISO 16000-9 or 16000-10 combined with standard method for sample extraction ISO 16000-11</p> |
| <p>8.3 Formaldehyde</p> <p>Emission rate for formaldehyde <0.05 mg/m² h</p> <p>or</p> <p>Formaldehyde concentration <0.05 mg/m³</p> | <p>Formaldehyde</p> <p>Emission rate for formaldehyde 0.05-0.124 mg/m² h</p> <p>or</p> <p>Formaldehyde concentration 0.05-0.124 mg/m³</p> | <p>Formaldehyde</p> <p>Emission rate for formaldehyde >0.124 mg/m² h</p> <p>or</p> <p>Formaldehyde concentration >0.124 mg/m³</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> National environment targets "Nontoxic environment" and "Good Built Environment" <p>Comment:</p> <p>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</p> |
| <p>8.4 Assessment of emissions</p> <p>Emission rate for TVOC <200 µg/m²,h</p> <p>or</p> <p>TVOC concentration <200 µg/m³</p> | <p>Assessment of emissions</p> <p>Emission rate for TVOC 200 - 400 µg/m²,h</p> <p>or</p> <p>TVOC concentration 200 - 400 µg/m³</p> | <p>Assessment of emissions</p> <p>Emission rate for TVOC >400 µg/m²,h</p> <p>or</p> <p>TVOC concentration <400 µg/m³</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> National environment targets "Nontoxic environment" and "Good Built Environment" <p>Comment:</p> <p>Measured according to chamber method SS-EN 13419-1/-2 and analysis ISO 16000-6. Levels in accordance with Finnish material classification M1 and M2 or CESAT. Measurements made within 26 weeks</p> |

| | | | |
|---|--|--------------------------------------|--|
| <p>8.7 Electric fields Electric field levels stated or Product cannot generate electric field or Electrical field in facility <10V/m</p> | <p>Electric fields No information available about electric fields</p> | <p>Electric fields</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> National environment targets "Good Built Environment" <p>Comment: Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>8.8 Magnetic fields Magnetic field levels stated or Product cannot generate magnetic fields or Magnetic flux density in facility is <0.2 μT</p> | <p>Magnetic fields No information available about magnetic fields</p> | <p>Magnetic fields --</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> National environment targets "Good Built Environment" <p>Comment: Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |
| <p>8.9 Noise Information about noise stated</p> | <p>Noise No information available about noise</p> | <p>Noise --</p> | <p>Criteria in line with:</p> <ul style="list-style-type: none"> National environment targets "Good Built Environment" <p>Comment: 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. Information is not mandatory in BPD3, therefore the assessment <i>To be Avoided</i> cannot be given.</p> |

Byggvarubedömningens viktning av kriterier

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 stated in the table below showing what must be met before a product is given any total assessment. Unless both conditions for *accepted* are met 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 always 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>. |

Byggvarubedomningen'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. Om the product card the overall assessment is shown with a big arrow and the content assessment with a small arrow.

| |
|--|
| <p>➤ <i>Recommended</i></p> <p>➡ <i>Accepted</i></p> <p>⬇ <i>To be avoided</i></p> |
|--|

Appendix 1

Undesired substances and substance groups

Substances that may 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 |

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.