

Wielsbeke, 19/01/2018

Ref.: BREEAM A20 list compliance UNILIN Engineered Wood Flooring

Dear,

Hereby I, Jasper De Jaeger Technical Services Manager of Unilin Flooring bvba, declare the following about the Engineered Wood Flooring made by Unilin Flooring BVBA in both factories Vyskov, Czech Republic and Kedah, Malaysia.

- For the production of Engineered Wood Flooring (EWF) we do not use compounds listed in the **A20 BREEAM NOR 2012** nor does Unilin bvba, division Flooring add actively one of these products in the manufacturing.
- Furthermore I confirm that for all products, Unilin bvba, division Flooring complies with the **Reach Regulation 1907/2006/EC**.
- I also declare that following the harmonized European standard EN14041 we do NOT use any carcinogenic, mutagenic nor reprotoxic substances of class 1A and 1B in our EWF products.
- Some EWF products carry the Nordic Swan Ecolabel, more information at you local sales representative.

I remain available for further questions or remarks.

Attachments: 3 signed pages A20 List BREEAM NOR 2012

Jasper De Jaeger



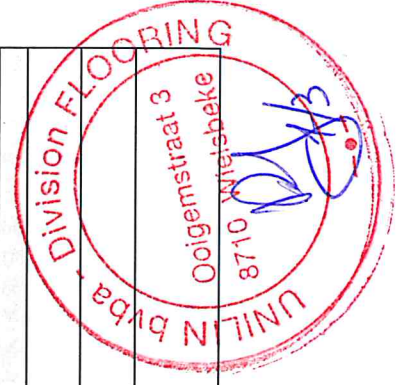
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14.12 Technical Checklist A20: Miljøgiftslisten

Checklist A 20

PRODUCT GROUP	CHEMICALS TO BE AVOIDED	ARE SWAN-LABELLED PRODUCTS AVAILABLE? (pr okt-11, can easily be substituted, www.ecolabel.no)	DOCUMENTATION (to be filled in for each project) (When using products labelled with the Swan or the EU -flower, no other documentation is necessary to confirm that requirements are met)
Building materials			
Boards	Arsenic, Lead, Brominated flame retardants (HBCD, TBBPA), Phthalates DEHP, BBP and DBP, Chromium, Octyl-/Nonylphenol	Yes	
Vinyl flooring	Phthalates DEHP, BBP, DBP, Bisphenol A, Lead, Brominated flame retardants (HBCD, TBBPA), medium-chained chlorinated paraffins (short-chain paraffins are prohibited)	No	
Wallpaper (vinyl-/wet room wallpaper and fibreglass wallpaper)	Brominated flame retardants (HBCD, TBBPA), Phthalates DEHP, BBP and DBP, Lead, Arsen og medium-chained chlorinated paraffins	No	
Carpets	PFOS/PFOA	No	
Woodwork	Creosote	Yes	
XPS (extruded polystyrene), EPS (expanded polystyrene) Cellular rubber insulation	Brominated flame retardants (HBCD, TBBPA) (flame retardants penta-, okta- og deka-BDE is prohibited)	No	
Polycarbonate sheet	All polycarbonat contains Bisphenol A	No	
Windows/ exterior doors	Bisphenol A, Brominated flame retardants (HBCD, TBBPA), Phthalates DEHP, BBP and DBP, chlorinated paraffins, PFOS/PFOA, Octyl-/Nonylphenol	Yes	
Chemical products			
Glue	Bisphenol A, BBP and DBP, chlorinated paraffins, Krom, Octyl-/Nonylphenol	Yes	
Fillers, sealants and foam	Bisphenol A, Phthalates DEHP, BBP og DBP, chlorinated paraffins, Chromium, Octyl-/Nonylphenol, siloksan (D5)	Yes	
Paint, stains and varnishes	Bisphenol A, Lead, Phthalates DEHP, BBP and DBP, cadmium, chlorinated paraffins, Chromium, Octyl-/Nonylphenol og siloksan (D5)	Yes	



Information regarding checklist A20

Background

The list is based on Klifs list of the most environmentally hazardous chemicals, the “worst chemicals”, and their list of what chemical products and building materials they can be found in. Klif has gathered this information on their website www.erdetfarlig.no.

The basis for BREEAM-NORs requirements on documenting the absence of the “worst chemicals” lies in the law of product control § 3a The substitution duty, and TEK 10 § 9-2. Also, most products containing the “worst chemicals” are categorised as hazardous waste. The disposal of hazardous waste when replacing products means increased costs for the building owner.

Checklist A20 contains the most health- and environmentally hazardous chemicals based on Klifs assessment. There are more health- and environmentally hazardous chemicals in building materials. Visit www.erdetfarlig.no for further information. However, the minimum requirement of the content of these health- and environmental hazardous chemicals in BREEAM-NOR, is only related to Checklist A20.

How to use the checklist.

For each building material given in the left column, the project must document the absence of the corresponding chemicals in the building material. If the project does not use the building material in the left column, the project manager must confirm this in writing. When several products are used within each product group, ex. different types of paint or glue, all products used in the project must be checked out and documented.

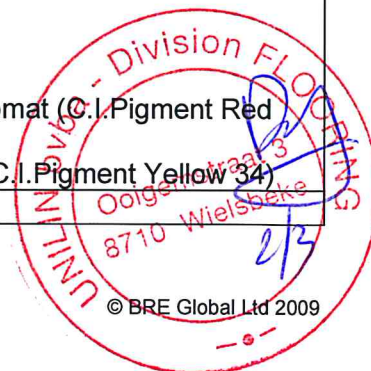
The project can write a deviation statement if one finds it necessary, due to technicalities, to use a product which contains one of the “worst chemicals”. The deviation statement must be approved by auditor to be valid as an exception from BREEAM-NORs minimum requirements.

For building materials, approved documentation is one of the following:

- EPD (Environmental Product Declaration) stating the chemical content
- Sintef Byggforsk Teknisk Godkjenning (TG) of 1.1.10, as a guarantee that the product does not contain the listed chemicals.
- Eco – labelled the Swan or the EU-flower, for a listing of the labelled products see www.ecolabel.no
- A letter from the legally responsible at the producer in question stating that the given product does not contain one of the chemicals from the A20 checklist.

For chemical products one can also check against the Safety Data Sheet (EHS – data sheet) for the product. Safety Data Sheets are statutory for chemical products. The unwanted chemicals may occur under alternative conditions. Therefore; see the following alternative names for the different chemicals:

Bisfenol A: 4, 4'-isopropylidendifenol 4, 4'-(1-metyletyliden)bisfenol	Bromerte flammehemmere: Tetrabrombisfenol A (TBBPA) Heksabromsyklododekan (HBCDD)
Ftalater Di(2-Ethylhexyl)phthalate Dietylheksylftalat	PFOS/PFOA Perfluoroktansulfonat Perfluoroktansyre
Oktyl-/nonylfenoler Octylphenol Nonylphenol Oktylfenoletoksilat Octylphenol ethoxylate Nonylfenoletoksilat Nonylphenol ethoxylate Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-w-hydroxy- Fenol, 4-nonyl-, forgrenet	Bly Pb Lead Blykromat Blyfosfitt Blyoksid (blymønje) Blymonoksid Tetraetylby Blynaftenat Blyulfomolybdatkromat (C.I.Pigment Red 104) Blyulfokromatgul (C.I.Pigment Yellow 34)
Krom	Klorparafiner



<p>Dikromtrioksid Kromtrioksid Blyulfokromatgul (C.I.Pigment Yellow 34) Blyulfomolybdatkromat (C.I.Pigment Red 104) Natriumdikromat Strontiumkromat Bariumkromat</p>	<p>Chlorinated paraffins Mellomkjedete klorparafiner Klorerte alkaner, C14-17 Medium chained chlorinated paraffins (MCCP)</p>
<p>Arsen Arsensyre Arsin (arsenhydrid) Blyhydrogenarsenat Diarsenpentoksid (arsenpentoksid) Diarsentrioksid (arsentrioksid, arsenikk) Trietylarsenat Galliumarsenid</p>	<p>Siloksan D5 Cyclomethicone Cyclopentasiloxane Pentacyclomethicone Dekametylsyklopentasiloksan</p>
<p>Kadmium Cd Cadmium Kadmiumcyanid Kadmiumoksid Kadmiumsulfid Kadmiumformiat Kadmiumfluorid Kadmiumjodid Kadmiumklorid Kadmiumsulfat Kadmiumheksafluorsilikat(2-)</p>	

