Consultation response for

Greaseproof paper



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Nordic Swan Ecolabelled Greaseproof Paper – Consultation response $049/5.0,\,2023\text{-}12\text{-}14$

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1 Summary

For almost 30 years, Nordic Ecolabelling has set requirements for ecolabelling of paper products. The requirements are set from a life cycle perspective, so that requirements are placed on the phases of the paper product's life cycle that have the greatest relevance and potential for environmental improvements.

The consultation proposal of Nordic Ecolabelling's criteria for Greaseproof paper, version 5, was very ambitious regarding energy and greenhouse gas requirements. The public consultation was carried out during the period 11 May 2023 to 30 June 2023. There was a total of 8 responses from different stakeholders.

The areas that had been highlighted as the biggest changes compared to generation 4 received the most comments, namely stricter requirements for:

- energy (O5) and greenhouse gases (O6 and O7)
- emissions to air and water (O8)
- silicones used for coating (O10)
- function properties of the product (O13)
- packaging and labelling (O14 and O17)

After the public consultation, the level of ambition has eased a bit, but the adjustment of the requirements still means that the environmental profile of the Nordic Swan Ecolabel greaseproof paper is raised, especially with regard to energy and climate. The ambition level was adjusted regarding:

- Energy requirements (O5). Many manufacturers commented that the tightening of reference value for fuel is too strict and difficult to meet. After the public consultation, reference value for fuel have been eased a bit, from 2500 kWh/ADt to 3000 kWh/ADt.
- Requirements for greenhouse gases (O7). Many manufacturers criticized that the proposed limit value for CO_{2e} of 700 kg/ADt is too strict. After the public consultation, the requirement has been reviewed. The structure is the same as in the consultation proposal, but the limit value has been eased slightly, from 700 to 900 kg/ADt. In the consultation proposal, the requirement for greenhouse gas emissions was reformulated to only include emissions of greenhouse gases originating from fuel used for process heat. Previously, CO_{2e} emissions from both fuel and electricity use were included in the requirement, which means that the limit values are no longer comparable between generation 4 and 5 of the criteria.
- The reference value for NOx in the requirement for emissions to water (O8) has been adjusted from 0.5 to 0.8 kg/ADt after the open consultation.
- Regarding requirements for silicone coating of greaseproof paper (O10), The limit value for the impurities D4, D5 and D6 has been adjusted from 400 ppm in the silicone emulsion to 1000 ppm per dry silicone. The limit value for total content of D4, D5 and D6 has been removed. Impurities must be calculated on the dry content of silicone to avoid dilution of the commercial product. While the new limit value may appear to reduce the level of ambition, it actually result in

a significant tightening of the limit value due to revised definitions and is, thus, considerably stricter than in the previous generation.

- The requirement for functional properties of the product (O13) has been removed mainly due to lacking standardized methods for the most critical paper's functions such as resistance to oil and grease and non-stick performance in silicone coated papers. However, requirement that it must be possible to reuse baking paper remains in the Criteria and has been moved to the requirement O3.
- The requirement for recycled raw material (35%) in plastic packaging (O14, after consultation O13) remains the same as in the open consultation. By setting requirement for recycled content in the plastic packaging, Nordic Ecolabelling wishes to be prepared for future legislation.
- The requirement (O17, after consultation O16) has been adjusted: If the product or its packaging carries information on sorting and recycling of product, then the information must comply with established sorting and recycling systems available in the country in which the product is to be sold.

After the consultation, a prohibition for 34 bisphenols¹ that have been identified by ECHA for further EU regulatory risk management has been introduced in the requirement O10 in line with Nordic Ecolabelling's guidelines for chemicals.

In section 5, there is a Table 6 showing all the main changes that have been made to the criteria document since the public consultation. Only minor adjustments and clarifications have been made to other requirements.

In section 4, Nordic Ecolabelling has responded to all comments and described whether the requirement has been adjusted. The section also includes comments received for the requirements in the Basic and Chemical Module. The Criteria for greaseproof paper belongs to in a so-called module system, where the Basic Module and the Chemical Module cover the general requirements for pulp and paper production, including forestry.

2 About the consultation

Nordic Ecolabelling's proposal for criteria for Nordic Swan Ecolabelled greaseproof paper generation 5 was for consultation during the period 11 May to 30 June 2023.

Nordic Swan Ecolabel greaseproof paper:

- Is manufactured in a climate- and energy efficient way, with reduced energy
 consumption and reduced emissions of greenhouse gases, with no dependence
 on fossil oil or coal in the production process.
- Meets strict requirements concerning chemicals that are hazardous to health and harmful to the environment, Fluorine and chromium compounds are prohibited.

¹ Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section2.1:Bisphenols for which further EU RRM is proposed – restriction https://echa.europa.eu/documents/10162/c2a8b29d-0e2d-7df8-dac1-2433e2477b02

- Is made of 100% traceable fibres sourced from controlled origins, with a minimum requirement of 70 % of fibres originating from certified forests.
- Meets strict requirements for limiting emissions into the air and water during the manufacturing process.

Following issues were highlighted in the consultation letter:

- The energy requirement (O5) and the limit value set on the emissions of greenhouse gases (700 kg/ADt) in O7. If you have comments on these levels, please explain your objections by specifying which kind of fuel you use, and why you therefore consider the suggested limits to be a problem.
- The requirement for functional properties of the product (O13). If you have comments on the suggested tests, please explain your objections by specifying what kind of test you use, and why you consider the suggested tests to be a problem.

In this consultation response document, all comments are compiled and answered by Nordic Ecolabelling. The aim is, in addition to compiling all comments, to show how external comments have influenced the requirements. Nordic Ecolabelling is grateful for all responses that help us in our development and help us to ensure that the work on the criteria complies with the ISO 14024 standard.

3 Compilation of received responses

A total of 8 responses have been received in the consultation, all of them providing only comments. See the Tables 1-5 below.

Table 1: Compilation of received responses

Country	A. Only comments	B. Supports the proposal	C. Supports the proposal with comments	D. Refrain from commenting	E. Rejects the proposal with justification	Totally
Denmark	2					
Sweden	1					
Finland	4					
Norway	1					
Iceland						
Totally	8					

Table 2: Danish consultation responses

Consultation body	A. Only comments	B. Supports the proposal	C. Supports the proposal with comments	D. Refrain from commenting	E. Rejects the proposal with justification
Miljøministeriet	X				
Rul-let A/S	X				
Σ Danish responses:	2				

Table 3: Swedish consultation responses

Consultation body	A. Only comments	B. Supports the proposal	C. Supports the proposal with comments	D. Refrain from commenting	E. Rejects the proposal with justification
Skogsindustrierna/Swedish	X				
Forest Industries					
Σ Swedish responses:	1				

Table 4: Finnish consultation responses

Consultation body	A. Only comments	B. Supports the proposal	C. Supports the proposal with comments	D. Refrain from commenting	E. Rejects the proposal with justification
ELKEM	X				
European Paper Chemicals Group (EPCG)	X				
Metsä Greaseproof Papers	X				
Tervakoski Oy	X				
Σ Finnish responses:	4				

Table 5: Norwegian consultation responses

Consultation body	A. Only comments	B. Supports the proposal	C. Supports the proposal with comments	D. Refrain from commenting	E. Rejects the proposal with justification
Nordic Paper	X				
Σ Norwegian responses:	1				

4 Comments to the criteria, in detail

The individual comments from consultation bodies are compiled and grouped in this section and follow the numbers on the requirements in the consultation proposal of the criteria. Some of the consultation bodies have commented on several areas in the proposal and comments are then divided by theme. Nordic Ecolabelling has responded to the comments and it has been done jointly if there are several stakeholdes that have commented on the same theme.

The comments regarding requirements in the Basic and Chemical Module are summarized at the end of this chapter, sections 4.3.8. These modules were on open consultation together with the Nordic Ecolabelling Criteria for Copy and Printing Paper during 2020. The requirements for paper products are today gathered in a so-called module system, where the Basic Module and the Chemical Module cover the general requirements for pulp and paper production, including forestry.

4.1 General comments

Miljøministeriet

Miljøministeriets samlede høringssvar indeholder kommentarer fra såvel Miljøstyrelsen som fra Miljøministeriets departement. Det er vurderingen, at ministeriet vil kunne godkende de reviderede i Danmarks Miljømærkenævn, hvis kriteriernes miljøbeskyttelsesniveau ikke forringes væsentligt efter høringen. Der tages her et forbehold for Fødevarestyrelsens endelige stillingtagen.

Nordisk Miljömärknings kommentar

Tack för kommentarer. Individuella krav har justerats efter remissen, men totalt sett är förslaget till nya kriterier strängare än nuvarande version.

4.2 Definition of the product group

4.2.1 What can carry the Nordic Swan Ecolabel?

No consultation comments received.

4.2.2 What is required to be Nordic Swan Ecolabelled?

No consultation comments received.

4.3 Comments to the individual requirements

4.3.1 Information about production

No consultation comments received.

O1 Description of the product

No consultation comments received.

O2 Pulp

No consultation comments received.

O3 Greaseproof paper and products

No consultation comments received.

O4 Requirement for pulp used to manufacture paper for contact with food

Miljøministeriet

Miljøstyrelsen har ikke bemærkninger til O4 (Genanvendt papirmasse).

Nordisk Miljömärknings kommentar

Tack för kommentar. Nordisk Miljömärkning har bedömt att det fortfarande är relevant att behålla förbud mot återvunna fibrer kvar i fettäta papper i kontakt med mat. Återvunna fibrer kan innehålla okända ämnen och vara förorenade med ämnen som inte bör finnas i produkter som används i kontakt med livsmedel.

4.3.2 Energy and greenhouse gases

O5 Energy

Skogsindustrierna

Svanens förslag

The reference values for the manufacturing of greaseproof paper consumption of fuel are set at 2500 (3500) kWh/ADt, and for electricity at 1400 (2200) kWh/ADt.

Skogsindustriernas förslag

En reduktionsfaktor i energiberäkningarna för Svanen-kriterierna när biobränsle används som energikälla alternativt höja gränsvärden.

Synpunkter på Svanen förslag

Skogsindustrin anser att det inte är rimligt att i ett steg minska referensvärdena för pappersproduktionen med 30% eller mer för bränsle och el. Dessutom föreslås en sänkning av energipoängen från 2,5 till 2,3, vilket ytterligare blir en börda. Natural greaseproof produceras genom att mekaniskt bearbeta fibrerna för att undvika att tillsätta fluorkemikalier. Då används energi i någon form, främst bioenergi som bränsle. Det vore rimligt att i så fall använda en reduktionsfaktor i energiberäkningarna för Svanen-kriterierna när biobränsle används till energin. Vidare påverkar referensvärdena för massan den totala energiberäkningen och här ligger de ledande massaleverantörerna klart över de referensvärdena. Skogsindustrin betonar att en rimlig tidshorisont behöver tillämpas vid implementering av detta förslag.

Nordisk Miljömärknings kommentar

Tack för kommentar. Fettäta papper hör till Nordisk Miljömärknings modulsystem för papper och följer därmed Basmodulen, generation 3. Massornas referensvärden ställs i Basmodulen samt även beräkningsprinciperna för energi som har skärpts under den senaste revisionen av Basmodulen (2020). Enligt dessa principer regleras energiförbrukningen genom kraven på bränsle och el medan bränsletypen som används för värmeproduktion regleras av kravet på utsläpp av växthusgaser. Man tillämpar inte en reduktionsfaktor i energiberäkningarna när biobränsle används som energikälla.

Nordisk Miljömärkning är en frivillig miljömärkning som Svanenmärker de miljömässigt bästa fettäta pappersprodukterna på marknaden. Nordisk Miljömärkning strävar efter att sätta en kravnivå som gör att den bästa tredjedelen av en given produktgrupp, här fettäta papper och produkter, klarar kraven. Det är sant att förslag till energi referensvärden på remiss var ambitiösa men fettäta papprets licensdata visade att det finns möjligheter att skärpa dessa värden. Baserat på inkomna remissvaren har fettäta papperets referensvärde för bränsle lindrats från 2500 kWh/ADt till 3000 kWh/ADt efter remissen. Skärpare gränsvärden betyder att endast de bästa pappersbruken med goda massor kan uppfylla kravet.

Det bör även noteras att fastän referensvärdena är skärpta så ger den slutliga poängberäkningen flexibilitet till tillverkaren (15 % över optimalt förhållande) som Svanenmärkt fettäta papper behöver uppfylla.

Metsä Greaseproof Papers

Fuel consumption reference value for greaseproof paper making has been tightened too much, from 3500 to 2500 kWh/t. In order to achieve natural greaseproofness without fluorochemicals, energy is needed for refining of pulp more than in normal paper making. Fuel consumption reference value should be tightened, but only to 2700 kWh/t.

Nordic Ecolabelling

Thank you for your comments. based on the consultation comments, the reference value for fuel have been revised, from 2500 kWh/ADt to 3000 kWh/ADt. Please, note that although the reference values are tightened, the final score calculation provides flexibility (15% above the optimal ratio) that Nordic Swan Ecolabel greaseproof paper product needs to meet.

Nordic Paper

Nordic Swan proposal (O5)

The reference values for the manufacturing of greaseproof paper consumption of fuel are set at 2500 (3500) kWh/ADt, and for electricity at 1400 (2200) kWh/ADt.

Nordic Paper proposal

The reference value of fuel should be kept at the current level 3500 kWh/ADt. When steam from electric boiler is used, this electricity should be deducted from the electricity points score, ie only be included in the fuel point score after conversion using the 1.25 factor as proposed. Increase the suggested reference values for fuel use for pulp production.

Nordic Paper's comments on Nordic Swan proposal

The reduction of 30% or more for the reference values of energy use from fuel or electricity in paper production is not realistic. Further, the decrease of the energy point from 2,5 to 2,3 will mean even another reduction in addition to the already decreased reference values.

Natural greaseproof paper is produced by mechanical refining of the cellulose fibres. This creates a natural barrier of cellulose so there will be no need to add fluorochemicals (PFAS) for the barrier properties of the papers. Because of the mechanical treatment of the fibres more water will be attracted to the fibres and the dry solids content of a natural greaseproof paper web prior to the paper machine drying section is considerably lower than for other paper grades, ie the drying process for a natural greaseproof paper requires use of more energy compared to other types of papers. In a side-by-side comparison between liner and natural greaseproof, the use of energy is more than double for the natural greaseproof paper. Therefore, the energy reference values for greaseproof paper should be kept as they are to be on a realistic level compared to other paper grades.

In addition, the reference values for the pulp used will affect the total energy points and now all leading pulp suppliers, including state-of-the-art mills, are well above the current reference values. For a modern and new pulp mill with recovery boilers allowing for maximized electricity generation, the reported values for fuel use are around 40% above the suggested reference values. With current suggested energy points more than half of the total energy point will come from the pulp, which leaves very limited possibilities for the paper production. Therefore, the reference values for

fuel use for the pulp should be higher than the suggestion in the new criteria and instead line with the values from the best suppliers in the market of today.

Nordic Ecolabelling

Thank you for your comments. Greaseproof paper belongs to Nordic Ecolabelling's modular system for paper products and thus follows the Basic Module, generation 3. The reference values for the pulps are set in the Basic Module, as well as the calculation principles for energy (Appendix 4), that have been tightened during the recent revision of the Basic Module. Regarding reference values for pulps, they have been valid since 2020 and are achievable by the best mills. Please, note that although the reference values for pulp are tight, the final score calculation provides flexibility (15% above the optimal ratio) that Nordic Swan Ecolabel (NSE) greaseproof paper product needs to meet. Regarding steam from electric boilers, the energy of the steam is converted into fuel by multiplying the amount of electricity used by 1.25. The resulting amount of energy is calculated in the fuel consumption of the production, not in both electricity and fuel scores.

Based on the consultation comments, the reference value for fuel in the manufacturing of greaseproof paper has been revised, from 2500 kWh/ADt to 3000 kWh/ADt. Nordic Ecolabelling is a voluntary environmental label and the NSE label is granted to the best environmentally friendly greaseproof paper products on the market. Nordic Ecolabelling strives to set a level of requirements that means that only the best third of a product group in question, here greaseproof paper and products, meets the requirements. Tighter limit values mean that only the best paper mills with good quality pulps can meet the requirement.

Tervakoski Oy

Energy requirements are too tight. Very difficult to achieve. In the case of greaseproof papers, greaseproof is often achieved, among other things, largely by refining, which is an energy-consuming process.

Nordic Ecolabelling

Thank you for your comments. Based on the consultation comments, the reference value for fuel have been revised from 2500 kWh/ADt to 3000 kWh/ADt. Please, note that although the reference values are tightened, the final score calculation provides flexibility (15% above the optimal ratio) that Nordic Swan Ecolabel greaseproof paper product needs to meet. See also Nordic Ecolabelling's consultation response to Nordic Paper above.

O6 Fossil fuels

Tervakoski Oy

Fossil fuel banning (use of fossil oil) => this is essentially stated in the mill's environmental permit, but in the current world situation, paper mills have had to prepared (especially natural gas users) for various sources of back-up energy, including fossil oil. If a total ban for fossil oil is planned in the generation 5 of the Criteria, would it be possible, for example, to set a maximum proportion, etc.?

Nordic Ecolabelling

Thank you for your comments. The ban on fossil fuels (O6) is new in the Criteria for Greaseproof Paper. Nordic Ecolabelling wishes to encourage fossil-free manufacturing, and therefore a ban on the use of fossil oil and coal as main fuels for production of process heat in paper mill is introduced. However, necessary use of fossil oil for shorter periods such as in planned maintenance stops, emergency maintenance

stops, as a reserve or tip fuel is still allowed. The exemption for necessary use is only applied to oil, not to coal. What is meant with reserve fuel can sometimes be a bit unclear. As you also point out, reserve fuel can e.g. be defined in paper mills' environmental permits issued by the authorities. Therefore, it has not been defined in more detail in the criteria itself, but it is intended that the use of reserve fuel should mainly be calculated in days, not in months.

O7 Emissions of greenhouse gases

Skogsindustrierna

Svanen förslag (O7)

Emissions of greenhouse gases from fuels and electricity used for production of process heat must not exceed 700 kg CO_{2e} /ADt paper. CO_{2e} calculations include emissions from production of both greaseproof paper and constituent pulps.

Skogsindustriernas förslag

Utsläpp för ej överstiga referensvärde1200 kgCO₂/Adt.

Skogsindustriernas synpunkter på Svanens förslag

700 kgCO₂/Adt är en alltför kraftig sänkning eftersom den både inkluderar växthusgasutsläpp både från massa och papperstillverkningen. En gradvis sänkning efterfrågas och med ett referensvärde på 1200 kgCO₂/Adt.

Nordisk Miljömärknings kommentar

Tack för kommentar. Remissförslag till gränsvärde för utsläpp av CO2_e var ambitiöst men fettäta papprets licensdata visade att det finns möjligheter att skärpa gränsvärden. Flera remissinstanserna ansåg att skärpningen av gränsvärdet var för skarp i remissförslaget. Därför har gränsvärden lindras efter remissen, från 700 till 900 kg/ADt CO₂ vilket betyder att endast de bästa bruken som använder de bästa massorna kan Svanenmärkas.

Metsä Greaseproof Papers

 $\rm CO_2$ emission limitation is too tight, 700 kg/t. There is still need to use fossil fuels also other than natural gas in emergency situations such as the war in Ukraine. The $\rm CO_2$ limitation should be tightened, but only to 950 kg/t.

Nordic Ecolabelling

Thank you for your comments. The consultation proposal for the limit value of emissions of greenhouse gases was ambitious, but the greaseproof paper's license data indicated that there are opportunities to tighten the limit value. Based on the consultation comments, the limit value for emissions of greenhouse gases has been revised from 700 kg/ADt to 900 kWh/ADt.

Nordic Paper

Nordic Swan proposal (O7)

Emissions of greenhouse gases from fuels and electricity used for production of process heat must not exceed 700 kg CO_{2e} /ADt paper. CO_{2e} calculations include emissions from production of both greaseproof paper and constituent pulps.

Nordic Paper proposal

A gradual reduction from 1700 kg CO_{2e}/ADt paper would be realistic.

Nordic Paper's comments on Nordic Swan proposal

A reduction from 1700 kg CO_{2e}/ADt paper to 700 kg CO_{2e}/ADt paper is too large in one step. Especially when the CO₂ emissions are supposed to include emissions from both pulp and paper production. The reduction should be done gradually.

Nordic Ecolabelling

Thank you for your comments. Regarding the reduction of limit value of 1700 kg CO_{2e}/t to 700 kg CO_{2e}/ADt paper may sound huge but, please, note that this is mainly due to the different calculation methods used. In the previous generation 4, emissions generated during the production of all electricity used in the manufacturing process are included in the calculation whereas in the proposal for the generation 5, these emissions originating from electricity are not included except for the electricity that is used to produce process heat.

The consultation proposal for the limit value of emissions of greenhouse gases was ambitious, but the greaseproof paper's license data indicated that there are opportunities to tighten the limit value. Based on the consultation comments, the limit value for emissions of greenhouse gases has been revised from 700 kg/ADt to 900 kg/ADt.

4.3.3 Emissions to water and air

O8 Total emissions score

Metsä Greaseproof Papers

NOx reference value has been tightened from 1.2 to 0.5 kg/t. Many sites have stopped using fossil fuels and substituted it with biomass. With biomass fuel, the proposed low reference value cannot be achieved. We propose that the reference value will not be lowered, but increased to 1.4 to encourage green transition to biobased fuels.

Nordic Ecolabelling

Thank you for your comments. After the open consultation, reference values for emissions of NOx have been slightly adjusted, from 0.5 to 0.8 kg/ADt in the requirement for emissions to water and air (O8). Please, note that although the reference values are tightened, the final score calculation provides flexibility that Nordic Swan Ecolabel greaseproof paper product needs to meet.

Nordic Paper

Nordic Swan proposal (O8)

Reference values for emissions to air and water have been tightened.

Nordic Paper proposal

OK

Nordic Paper's comments on Nordic Swan proposal

No comments

Nordic Ecolabelling

Thank you for your comments. The proposed reference values for emissions to water and air have been kept the same except those for NOx which have been slightly adjusted from 0.5 to 0.8 kg NOx/ADt paper.

4.3.4 Product safety and quality

Chemicals

O9 Optical brighteners and antimicrobial substances

Miljøministeriet, DK

Miljøstyrelsen har følgende kommentar til, at forbuddet mod optisk hvidt og antimikrobielle stoffer alene relaterer sig til stoffer, der er tilsat for at give bestemte funktioner i papiret og ikke til specifikke CAS-numre: Er det muligt, at nogle af de kemiske stoffer, som typisk anvendes til optisk hvidt eller mikrobiologisk begrænsning, potentielt kan have flere funktioner i produkter, som eksempelvis bindere eller lignende?

Hvis dette er tilfældet, kan styrelsen være bekymret for, om disse alligevel kan forekomme i svanemærket fedttæt papir, hvis producenten argumenterer for, at de pågældende stoffer er tilsat papiret med anden funktion end optisk hvidt eller antimikrobiel effekt for øje.

Miljøministeriets bemærker, at det er stoffernes miljø- og/eller sundhedseffekt, der har betydning, og at evt. nødvendig brug af miljø- eller sundhedsklassificerede kemikalier bør vurderes i kriteriefastsættelsen, herunder behovet for at undtage et eller flere kemikalier fra miljømærkekravene, hvis særlige forhold taler for, fx funktionen er nødvendighed for produktet.

Nordisk Miljömärknings kommentar

Tack för kommentar. Enligt vår bedömning på Nordisk Miljömärkning anser vi att det är mycket osannolikt att optiska vitmedel skulle kunna användas för något annat än deras ursprungliga ändamål. Detta beror på deras kemiska struktur, som är utformad för att absorbera ultraviolett (UV) ljus och omvandla det till synligt blått ljus. Eftersom den kemiska strukturen hos optiska vitmedel är primärt utformat för detta ändamål, är det inte vanligt att optiska vitmedel skulle ha en annan funktion baserat på dess molekylära struktur.

När det kommer till antibakteriella substanser, utgör de en bred kategori av ämnen som kan ha olika funktioner. Inom Nordisk Miljömärkning har vi valt att specifikt begränsa detta krav genom att förbjuda ämnen som avsiktligt tillsätts för att ha en antibakteriell effekt. Det innebär att ämnen som används med syftet att bekämpa bakterier, oavsett deras eventuella användning för andra ändamål, inte uppfyller våra kriterier för miljömärkning. Detta fokus hjälper till att minimera risken för onödig användning av antibakteriella ämnen. Vänligen notera att kriterierna för fettäta papper följer pappersprodukternas Kemikaliemodulen där det även ställs krav på klassificering av produktionskemikalier inklusive specifika krav på biocider/slemkämpningsmedel.

O10 Chemicals used for impregnation and coating

Miljøministeriet, DK

Siloxaner kan ifølge OECD-rapporten: <u>PFASs and Alternatives in Food Packaging</u> (Paper and Paperboard) Report on the Commercial Availability and Current Uses (oecd.org), dannes hvis silikonecoatet papir opvarmes flere gange til høje temperaturer. Miljøstyrelsen har ikke nærmere kendskab til konkrete data eller hvilke forhold, som giver anledning til dannelsen af siloxaner, men der kan være en risiko ved høje temperaturer for dannelse af cykliske siloxaner i niveauer over de

grænseværdier, som Svanemærkets kriterier fastsætter for urenheder af D4, D5 og D6. Derfor bør krav O13 (funktionelle egenskaber) til svanemærket fedttæt papir med silikonecoating udvides med et testkrav til producenten om at teste og angive i O17 ved hvilken max-temperatur svanemærket bagepapir (-forme) må 1) anvendes og efterfølgende 2) kan genbruges ved. Miljømærkning Danmark anbefales at indhente bidrag fra Fødevarestyrelsen om genbrug af coatet engangsbagepapir/forme.

Nordisk Miljömärknings kommentar

Tack för kommentar. Bakplåtspapper rekommenderas vanligtvis att användas vid en maximal temperatur på 220°C. Denna begränsning är relaterad till papperet i sig för att undvika brinnande fenomen och inte relaterad till silikon. Eftersom tillverkaren utför detta test på ett rutinmässigt sätt och även ange det på förpackningen har Nordisk Miljömärkning valt att inte ställa separata krav på det.

Om dessa baknings förhållanden som anges för papper följs finns det ingen anledning att överväga någon nedbrytning av dessa föroreningar D4, D5 och D6 enligt den information som vi har fått. I en dansk rapport testades 49 silikonprodukter avsedda för livsmedelskontakt från den norska marknaden. Bestruket papper för bakning utgjorde 8 av proverna och i inget av dessa hittades siloxaner över detektionsgränserna². I en annan rapport analyserades överföring av PDMS-oligomerer från pergament papper och det konkluderades att flera användningar av pergament papper verkar faktiskt vara det bästa tillvägagångssättet för att minska det totala upptaget av PDMS från denna källa³.

Skogsindustrierna

Svanen förslag (010)

The total content of D4, D5 and D6 must not exceed 1000 ppm in the commercial product. Impurities do not refer to substances which have been added to a raw material or the product actively and for a particular purpose, irrespective of quantity. The commercial product refers to a single component (e.g. silicon emulsion and catalyst emulsion) in a multicomponent silicone release coating system.

Skogsindustriernas förslag

The total content of D4, D5 and D6 must not exceed 1000 ppm in the mixture used in the production process. Stryka meningen:" The commercial product refers to a single component (e.g. silicon emulsion and catalyst emulsion) in a multicomponent silicone release coating system."

Synpunkter på Svanen förslag

Kommersiella produkter som används som processkemikalier är delvis i koncentrerad form av både kvalitets och miljöskäl. Att införa gränsvärde för koncentrat skulle bidra till mer utspädda lösningar på marknaden snarare än Meningen rörande silikonblandning bör strykas eftersom den är missledande.

² https://orbit.dtu.dk/en/publications/siloxanes-in-silicone-products-intended-for-food-contact-selected

Svanen förslag (010)

Chemicals added to the pulp or to impregnation/coating must not contain chromium or fluorinated substances.

Skogsindustriernas förslag

Chemicals intentionally added to the pulp or to impregnation/coating must not contain chromium or fluorinated substances.

Synpunkter på Svanen förslag

Högfluorerade ämnen är resistenta mot nedbrytning och ackumuleras därför i växter, djur och människor. För att bidra till att minska mängden högfluorerade ämnen så är det lämpligt att förbjuda avsiktligt tillsatta PFAS-kemikalier för att uppnå Svanen märkning.

Nordisk Miljömärknings kommentar

Tack för kommentarer. Nordisk miljömärkning är enig angående att förbjuda avsiktligt tillsatta PFAS-kemikalier och krombaserade ämnen.

Silikonleverantören är den som deklarerar innehållet på produkten, därför tycker Nordisk miljömärkning att gränsvärdet ska ställas på den enskilda silikonprodukten. Nordisk miljömärkning har även ändrat så att gränsvärdet nu ställs på torrhalten, alltså endast silikonet. Detta medför att gränsvärdet kommer vara på samma nivå oberoende av koncentrationen i den kommersiella produkten.

European Paper Chemicals Group (EPCG)

Regarding silicone treatment of paper: dodecamethylcyclohexasiloxane, D6, (CAS 540-97-6) has been introduced in the requirement O10. Impurities of D4, D5 and D6 in the commercial product must be at concentrations below 400 ppm (0.04% by weight, 400 mg/kg emulsion). The limit value is applied to each substance separately. The sum of D4, D5 and D6 must not exceed a limit value of 1000 ppm in the chemical product.

You are not solely changing a limit from 800 to 400 ppm but also changing the definition of Commercial product in scope.

Version 4.5 refers to 800 ppm in a "coating bath of silicone emulsion". Such a bath has typically a low solid content of <10% as silicone. Thus 800 ppm in the bath relates to 8000 ppm on dry silicone basis (for a 10% bath emulsion)

Version 5.0 refers to 400 ppm in a "silicone emulsion and catalyst emulsion". Such emulsions have typical solid content of 40%.

Thus 400 ppm in the emulsion relates to 1000 ppm on dry silicone basis (for a 40% emulsion)

In both modules (v4.5 and v5) a commercial product was defined as an emulsion. By definition this would rule out solvent-free (100%) silicone systems that could be applied as well.

Our proposal would be to set limits on dry active silicone basis rather than on emulsion basis. That will easier for the industry to calculate the compliance with new criterion O10.

As industry we can accept 1000 ppm residuals D4, D5, D6 on dry silicone basis and in total not more than 2500 ppm on dry silicone basis.

As mentioned above, knowing that typical silicone content in an emulsion is at 40 % (average in the industry) your proposed limit of 400 ppm would translate to a limit of 1000 ppm in the pure silicone.

We do not see any reason why solvent-free (100%) silicone systems are banned. So our proposal is to include Silicone polymers as well.

Our proposal to define impurity

* Impurity refers to residues from primary production which may be found in the commercial product at concentrations below 1000 ppm (0.1% by weight, 1000 mg/kg silicone). The limit value is applied to each substance separately. The total content of D4, D5 and D6 must not exceed 2500 ppm on dry silicone basis in the commercial product. Impurities do not refer to substances which have been added to a raw material or the product actively and for a particular purpose, irrespective of quantity. The commercial product refers to a single component (e.g. silicone polymer, silicone emulsion and catalyst emulsion) in a multicomponent silicone release coating system.

If needed, we can organize a telcon to discuss in more detail.

Nordic Ecolabelling

Thank you for your comments. We have adjusted the requirement and the limit value is now based on dry silicone basis. The limit value for D4, D5 and D5 is now 1000 ppm (0.1% by weight, 1000 mg/kg dry silicone). The total content of D4, D5 and D6 has been removed. Silicone polymer has been added as an example of a commercial product to make it more clearer that silicone polymers could be used as well.

ELKEM

Revised Criteria for Nordic Ecolabelling for Greaseproof Paper – Generation 5:

Today, revised criteria for Nordic Ecolabelling for Greaseproof Paper - Generation 5 highlight the following points related to the silicone treatment of paper:

Point 1:

 \rightarrow «Dodecamethylcyclohexasiloxane, D6, (CAS 540-97-6) has been introduced in the requirement O10».

Point 2:

- → «Octamethylcyclotetrasiloxane, D4, (CAS 556-67-2), decamethylcyclopentasiloxane, D5, (CAS 541-02-6) and dodecamethylcyclohexasiloxane, D6, (CAS 540-97-6), must not be used. Impurities of D4, D5 and D6 are exempt from this requirement*.
- → *Impurity refers to residues from primary production which may be found in the commercial product at concentrations below 400 ppm (0.04% by weight, 400 mg/kg emulsion). The limit value is applied to each substance separately. The total content of D4, D5 and D6 must not exceed 1000 ppm in the commercial product. Impurities do not refer to substances which have been added to a raw material or the product actively and for a particular purpose, irrespective of quantity».

Point 3:

→ «The commercial product refers to a single component (e.g. silicone emulsion and catalyst emulsion) in a multicomponent silicone release coating system».

ELKEM's comments versus revised criteria:

ELKEM's comments related to these revised criteria are the following:

Point 1

→ We understand that the introduction of D6 in the requirement O10 is motivated by the similar categorization of D5 as a vPvB substance in REACH SVHC.

Point 2:

- → We agree with the consideration of D4, D5 and D6 as impurities and not as intentionally added substances.
- → However, we consider requests for a concentration of less than 400 ppm for each impurity separately and a total content of less than 1000 ppm in a commercial product referring to «a single component (e.g. silicone emulsion and catalyst emulsion) in a multicomponent silicone release coating system» are not practically and economically feasible.

Point 3:

→ In the previous version of the Nordic Ecolabelling of greaseproof paper, a commercial product referred to a coating bath of silicone emulsion. In the new version, a commercial product refers to a single component (e.g. silicone emulsion and catalyst emulsion) in a multicomponent silicone release coating system. This change has a significant impact on the overall approach.

ELKEM's proposals versus revised criteria:

ELKEM's proposals are the following:

Point 1:

→ We agree with the introduction of D6 in the requirement O10.

Point 2:

- \rightarrow Due to the categorization of D4 as a PBT substance and considering a lower boiling point than D5 and D6 which facilitates its elimination, we would propose to maintain your proposal of D4 < 400 ppm in the commercial product.
- \rightarrow Due to more difficulties in removing D5 and D6 due to higher molecular weight and boiling point, we would propose to consider D5 < 800 ppm and D6 < 1000 ppm in the commercial product.
- \rightarrow We consider the criterion of a total content of D4, D5 and D6 < 1000 ppm as unrealistic with regard to all the previous shared arguments. We would recommend focusing only on a maximum content for each D4, D5 and D6 impurity separately.

Point 3:

→ We agree to consider a commercial product as a single component (e.g silicone emulsion and catalyst emulsion) in a multicomponent silicone release coating system.

Nordic Ecolabelling

Thank you for your comments. We have adjusted the requirement and the limit value is now based on dry silicone basis. The limit value for D4, D5 and D6 is now 1000 ppm (0.1% by weight, 1000 mg/kg dry silicone). The total content of D4, D5 and D6 has been removed.

Nordic Paper

Nordic Swan proposal (O10)

The total content of D4, D5 and D6 must not exceed 1000 ppm in the commercial product. Impurities do not refer to substances which have been added to a raw material or the product actively and for a particular purpose, irrespective of quantity. The commercial product refers to a single component (e.g. silicon emulsion and catalyst emulsion) in a multicomponent silicone release coating system.

Nordic Paper proposal

The content of D4, D5 and D6 to be controlled in the silicone coating bath used in paper production. Delete the sentence:" The commercial product refers to a single component (e.g. silicon emulsion and catalyst emulsion) in a multicomponent silicone release coating system".

Nordic Paper's comments on Nordic Swan proposal

The silicone release coating system is delivered in a concentrated form and in the future the dry content could be increased even further. This will reduce the transportation of silicone which will give a positive environmental impact. What is really of interest is to ensure that D4, D5 and D6 not will be present in the final paper product. Therefore, a measurement of the content of D4, D5 and D6 in the silicone coating bath used in paper production is more relevant.

Nordic Ecolabelling

Thank you for your comments. The silicone supplier is the one who declares the content of the product; therefore, Nordic Ecolabelling believes that the limit of D4, D5 and D6 should be set on the individual silicone product. Nordic Ecolabelling has also changed so that the limit value is now based on the dry content, i.e. only the silicone. This means that the limit value will be at the same level regardless of the concentration in the commercial product or in the silicon bath. The limit value for D4, D5 and D5 is now 1000 ppm (0.1% by weight, 1000 mg/kg dry silicone). The total content of D4, D5 and D6 has been removed.

Metsä Greaseproof Papers

Footnote on impurities in the point O10 is misleading. Commercial products used as process chemicals are delivered in concentrated form for both quality and environmental reasons. Introducing limit values for concentrates would contribute to more dilute solutions on the market rather than real elimination of impurities. We agree to add D6, but for limits that are achievable, please follow manufacturers' proposal.

Nordic Ecolabelling

Thank you for your comments. The silicone supplier is the one who declares the content of the product; therefore, Nordic Ecolabelling believes that the limit of D4, D5 and D6 should be set on the individual silicone product. Nordic Ecolabelling has also changed so that the limit value is now based on the dry content, i.e. only the silicone. This means that the limit value will be at the same level regardless of the concentration in the commercial product or in the silicon bath. The limit value for D4, D5 and D5 is now 1000 ppm (0.1% by weight, 1000 mg/kg dry silicone). The total content of D4, D5 and D6 has been removed.

O11 Colourants and printing inks

Miljøministeriet, DK

Det fremgår ikke af baggrundsdokumentet, hvorvidt farve og print er tilstrækkeligt essentielt til, at det skal tillades i miljømærket fedttæt papir. Miljøstyrelsen anbefaler, at Miljømærkning Danmark overvejer, hvorvidt kemiske stoffer, der er alene er tilsat af æstetiske årsager, bør tillades i Svanemærket fedttæt papir. Selvom det kan påvises, at disse ikke udgør en sundhedsmæssig risiko for forbrugeren, anvendes der ressourcer i forbindelse med produktion og håndtering af disse kemiske stoffer, som potentielt kan undværes.

Nordic Ecolabelling

Thank you for your comments. Colourants and printing inks are not very often used in greaseproof papers; however, it is commonly used in some specific products such as baking cups. To not exclude these products, colourants and printing inks are allowed in Nordic Swan Ecolabel greaseproof papers. We would like to emphasise that if colourants and printing inks are used, there are strict requirements which they need to fulfil, see closely the requirement.

European Paper Chemicals Group (EPCG)

A) There is a new requirement for colourants and printing inks (O11), colourants used shall follow BfR's recommendation XXXVI. including subsequent subdocuments or EuPia's guidelines and Swiss Ordinance Annex 10.

Your proposal:

O11 Colourants and printing inks

If colourants* and printing inks are used in the greaseproof paper and converted products, they must comply with:

- BfR's recommendation XXXVI. Paper and board for food contact, April 2021* or more recent versions and subsequent subdocuments such as BfR's recommendation XXXVI/2. Paper and Paperboard for baking purposes, April 2022** or more recent versions.
- EuPIA "Guideline on Printing Inks applied to Food Contact Materials" April 2020 or later
- Swiss Ordinance Annex 10.

The colourant/printing ink shall be manufactured in accordance with the EuPIA "Good ManufacturingPractices (GMP) - Printing Inks for Food Contact Materials". A statement of Composition (SoC) shall be available for each colourant/printing ink.

BfR and EUPIA and Swiss ordinance are solely applicable to food contact. Compliance with these is only relevant when greaseproof paper and converted products are actually used in contact with food.

We would propose to restrict criterion O11 to Colourants and printing inks in production of Greaseproof paper and product in contact with food.

In paper making, colourants and printing inks have a defined definition and are regulated differently.

-Colourants describe the dyes and pigments you use to colour the cellulose fibre or paper coating.

-Printing inks describe the dyes and pigments you add on top of a substrate (can be plastic, (un)coated paper, ...)

Both printing inks and colourants are typically mixtures (ie. consisting of active dye or pigment and other ingredients (ie. stabilizer, emulsifier, pH modifier, ..) Main regulatory difference is that Printing inks are added to a final article and all its components stay with the final article. While with colourants (typically added to the wet end of the paper making system) besides the active dye, all other ingredients are washed out.

FEICA industry association has provided specific rules for printing inks only. Those rules do not apply to colourants. Further, Printing inks are covered via the German and Swiss Printing Ink ordinance while colourants used in food contact paper are fully covered by BfR 36/1-3.

With reference to above, a colourant therefore can and should not be manufactured in accordance with EUPIA GMP documents nor can colorants suppliers prepare the so-called SoC document.

Instead, colourants suppliers have other (supplier specific) ways to communicate relevant food contact info into the paper industry.

In summary, our proposal would be to

- a) Limit O11 to articles intended to be in contact with food
- b) remove colourant from the EUPIA GMP and SoC requirement.
- c) remove the word "printing" from your colourants definition

Our proposal:

O11 Colourants and printing inks

If colourants* and printing inks are used in the greaseproof paper and converted products in contact with food, they must comply with:

- BfR's recommendation XXXVI. Paper and board for food contact, April 2021* or more recent versions and subsequent subdocuments such as BfR's recommendation XXXVI/2. Paper and Paperboard for baking purposes, April 2022** or more recent versions.
- EuPIA "Guideline on Printing Inks applied to Food Contact Materials" April 2020 or later
- Swiss Ordinance Annex 10.

The printing ink shall be manufactured in accordance with the EuPIA "Good ManufacturingPractices (GMP) - Printing Inks for Food Contact Materials". A statement of Composition (SoC) shall be available for each printing ink.

The colourant and printing ink must also meet the requirements set out in the Chemical Module for Paper Products, v.3 or later.

*Colourants - Product sold by a manufacturer that is used for dyeing, shading or colouring of paper or pulp.

 Ξ The paper manufacturer shall demonstrate compliance with the requirement in the webbased application tool.

 Ξ The manufacturer of the printing ink shall enclose a SoC according to EuPIA "Guideline on Printing Inks applied to Food Contact Materials" stating that they fulfil the requirements.

If needed, we can organize a telcon to discuss in more detail.

Nordic Ecolabelling

Thank you for your comments. We have adjusted requirement O11 according to your proposals.

O12 Greaseproof paper and product in contact with food

Nordic Paper

Nordic Swan proposal (O12)

Compliance with BfR's recommendation XXXVI.

Nordic Paper proposal

ΟK

Nordic Paper's comments on Nordic Swan proposal

No comments.

Nordic Ecolabelling

Thank you for your comments.

Product function

O13 Function properties

Miljøministeriet, DK

Se Miljøstyrelsens kommentar angående potentiel dannelse af siloxaner ved opvarmning af silikonecoatet papir ovenfor. Miljøministeriet mener på baggrund af kommentarer til O10, at der bør indføres et testkrav til svanemærket fedttæt papir med silikonecoating, som producentens grundlag til i O17 at angive ved, hvilken max-temperatur svanemærket bagepapir (-forme) kan anvendes og genbruges ved. Forhold der kan øge dannelsen af siloxaner kan også være kvaliteten af den anvendte silikone til imprægnering.

Nordisk Miljömärknings kommentar

Tack för kommentarer. Se Nordisk Miljömärknings svar på er remisskommentar i krav O10 ovan.

Metsä Greaseproof Papers

O13 Function properties. This chapter should be deleted completely. The requirements are too vague without testing methods. Specifications are agreed between manufacturers and their customers.

Nordic Ecolabelling

Thank you for your comments. The requirement for functional properties has been removed mainly due to lacking standardized methods for the most critical paper's functions such as resistance to oil and grease and non-stick performance in silicone coated papers. However, the requirement that it must be possible to reuse baking paper remains in the Criteria and has been moved to the requirement O3.

Nordic Paper

Nordic Swan proposal (O13)

The product must meet the function requirements applicable within the industry.

Nordic Paper proposal

Specify the Oil and Grease Resistance test to include Air Permeance. Delete the part with "Non-stick performance".

Nordic Paper's comments on Nordic Swan proposal

Air permeance is the most relevant test for papers without added PFAS that correlates to oil and grease resistance. Tests for non-stick performance or baking release are extremely difficult to standardize and the result is highly dependent on what type of bread that is baked. Therefore, it will be difficult to have a relevant standardized test for all types of papers.

Nordic Ecolabelling

Thank you for your comments. The requirement for functional properties has been removed mainly due to lacking standardized methods for the most critical paper's functions such as resistance to oil and grease and non-stick performance in silicone coated papers. However, the requirement that it must be possible to reuse baking paper remains in the Criteria and has been moved to the requirement O3.

4.3.5 Packaging and labelling

O14 Recycled raw material in sales packaging

Miljøministeriet

Miljøstyrelsen har ikke bemærkninger til O14-O16 (Emballagekrav).

Nordisk Miljömärknings kommentar

Tack för kommentar.

Skogsindustrierna

Svanen förslag (014)

Plastic packaging Plastics must contain at least 35% recycled** plastics.

Skogsindustriernas förslag

Plastics must contain at least 35% recycled plastics or biobased plastics.

Skogsindustriernas synpunkter på Svanens förslag

Förhandlingar kring förpackningsförordningen (PPWR) pågår ännu och lagförslaget väntas inte vara träda i kraft tidigast under 2024. Det är oklart ifall det kommer ställas krav på andel återvunnet avseende alla typer av förpackningar. Oavsett så kommer marknaden för återvunnen högkvalitativ plast behöva tid för att byggas upp och för att bemöta efterfrågan och fasa ut den fossilbaserade plasten så bör även biobaserat plastvara ett alternativ till återvunnen plast. Krav på återvunnet respektive biobaserad plast bör inte ställas per förpackning, utan per produkttyp och industrianläggning under ett visst tidsintervall.

Nordisk Miljömärknings kommentar

Tack för kommentar. Krav på att plastförpackningar ska innehålla minst 35 % återvunnet material är nytt i kriterierna. Detta är i linje med EU:s förslag till

förordning om förpackningar och förpackningsavfall som publicerades i november 2022. Det är sant att Förpackningsförordningen (PPWR) pågår ännu och lagförslaget väntas inte vara träda i kraft tidigast under 2024. Nordisk Miljömärkning ligger ändå i framkant och önskar att införa krav innan lagstiftningen. Genom att ställa krav på andel återvunnet material i förpackningar främjar Svanenmärket en övergång till material med lägre klimatpåverkan. Gällande biobaserat material i förpackningen har Nordisk Miljömärkning valt att inte ställa krav på det i detta skede. Användning av hållbart producerat biobaserat material ska snarare främjas i långlivade produkter än i förpackningar. Nordisk Miljömärkning främjar användningen av biobaserade råvaror istället för fossila bränslen men kräver samtidigt att de är hållbart producerade. Det finns en risk att en övergång från fossila till biobaserade material kan skapa nya miljöproblem, till exempel om skog omvandlas till jordbruksmark. På så sätt kan inköp av biobaserade material också leda till markanvändnings konflikter och hota den biologiska mångfalden.

Gällande beräkningssätt av återvunnet material, följer Nordisk Miljömärkning standarden ISO 14024 (type I ecolabel) där det ställs riktlinjer att krav som ställs måste vara riktade till den Svanenmärkta slutprodukten inte industrianläggningen. Notera ändå att Krav på återvunnet ställs per produkt på årsbasis.

Generellt, de flesta förpackningar på butikens hylla brukar vara pappersbaserade idag, så krav på återvunnen andel i plastförpackningen anses främst att sikta på framtiden.

Rul-let A/S

Vi fraråder kravet på at plastik skal bestå af 35% genbrugsmateriale på pakningen.

Nordisk Miljömärknings kommentar

Tack för kommentar. Efter remissen har kravet inte justerats, se även Nordisk Miljömärknings kommentarer till Skogsindustrierna ovan.

Nordic Paper

Nordic Swan proposal (O14-17)

Sales Packaging Paper and board packaging must contain at least 70% certified fibres or 70% recycled fibres or a combination.

Nordic Paper proposal

OK

Nordic Paper's comments on Nordic Swan proposal

As long as the option of only certified and no recycled fibres is there this is ok.

Nordic Ecolabelling

Thank you for your comments. No changes have been made to requirement for paper and board packaging.

O15 Recyclable packaging material in the sales packaging

No consultation comments received.

O16 Chlorinated plastic

No consultation comments received.

O17 Labelling

Miljøministeriet, DK

Se Miljøstyrelsens kommentar angående potentiel dannelse af siloxaner ved opvarmning af silikonecoatet papir ovenfor. Se også O10 og O13.

Nordisk Miljömärknings kommentar

Tack för kommentar. Se Nordisk Miljömärknings svar på er remisskommentar i krav O10 ovan.

Skogsindustrierna

Svanen förslag (O17)

The following text must be visibly printed on packaging of baking paper: "The pure paper can be used more than once". The packaging shall only carry information on sorting and recycling of product that is established in the country in which the product is to be sold.

Skogsindustriernas förslag

Märkningskrav för business-to-business bör tillåtas sättas på andra ställen än på förpackningen, tex. på declaration of compliance dokument. Produkter för business-to-consumers är lämpligare att ha märkningskrav på förpackningen: "This paper product can be used more than once"

Tag bort krav på märkning av sortering och återvinning av produkten fetttäta papper. Krav på märkning om hur förpackningen ska sorteras och återvinnas bör införas.

Synpunkter på Svanen förslag

Märkningskrav på produkten, fettäta papper, bör ej innehålla sortering och återvinning eftersom det är oklart hur kontaminerad och vilket skick produkten är i efter att konsumenten använt produkten, både avseende kontaminering och hur produktens skick.

Det är dessutom en utmaning att efterfråga olika märkning i olika länder för en specifik produkt som fettäta papper när lagstiftning rörande märkningskrav av produkter inte är fastställt än.

Det är generellt olika insamlings och återvinningssystem i EU:s medlemsländer och vissa fettäta papper kan även komposteras. De standarder som rör kompostering kommer att revideras (industriell och hemkompostering) och innan dessa är fastlagda så bör inte krav på märkning införas på produkten fettäta papper.

Stödjer märkningskrav på förpackningen, detta kommer även med stor sannolikhet vara i linje med lagstiftningskrav för förpackningar.

Nordisk Miljömärknings kommentar

Tack för kommentar. Efter remissen har kravet justerats enligt era kommentarer. Märkningskrav för business-to-business tillåts att sättas på andra ställen än på förpackningen. Vidare, har krav på märkning av sortering och återvinning för produkten förtydligats genom att specificera att vi endast ställer krav om det finns information om sortering och återvinning av pappersprodukten, snarare än att det är

obligatoriskt att ha denna information. Märkningskrav på förpackningen hålls däremot kvar.

Metsä Greaseproof Papers

O17 Labelling. Labeling requirements for business-to-business should be allowed to be placed in other places than on the packaging, e.g. on the declaration of compliance document. Some greaseproof papers are compostable according to compostability standards. It must be possible to convey information on successful standardised testing in sales packaging, regardless of local compostability facilities. The facilities may vary from one region to another within one country.

Nordic Ecolabelling

Thank you for your comments. After the consultation, the requirement has been partly adjusted according to your comments. Labelling requirements for business-to-business can be placed in locations other than on the packaging. Furthermore, requirements for labelling of sorting and recycling for the product have been clarified by specifying that the requirement only apply if there is information about the sorting and recycling of the product, rather than making it mandatory to have this information

Rul-let A/S

Vi fraråder kravet på affaldssortering på de enkelte lande da det er kompliceret.

Nordisk Miljömärknings kommentar

Tack för kommentar. Efter remissen har krav. på märkning av sortering och återvinning för produkten förtydligats, se svar till Skogsindustrierna och Metsä.

4.3.6 Licence maintenance

O18 Customer complaints

No consultation comments received.

O19 Traceability

No consultation comments received.

O20 Annual follow-up

No consultation comments received.

4.3.7 Appendices

No consultation comments received.

4.3.8 Comments to Module system of paper products

European Paper Chemicals Group (EPCG)

Major changes in the Chemical Module, generation 3:

EPCG was heavily involved in the creation of the Chemical module version 03. We find it a logical step that this module will eventually be used for all paper/pulp based articles.

As industry we do understand the major changes between chemical module v2.# and V3.#.

Nordic Ecolabelling's comments

Thank you for your comment. Chemical Module, gen 3 was on open consultation during 2020 together with the Nordic Swan Criteria for Copy and Printing Paper, gen 5 and thereby affects later all Nordic Swan Ecolabel Criteria for paper-based products. We appreciate your commitment to leave consultation comments to Nordic Ecolabelling.

During the revision of the greaseproof paper it was discussed whether these new hazard classes introduced in Regulation (EU) 2023/707\(^4\) should be included in the Criteria for Greaseproof Paper to align with the European Green Deal's goal of a toxic-free environment. Nordic Swan Ecolabel has already included ban on endocrine disruptors and PBT/vPvB substances in the requirement O2 'Prohibited substances' in the Chemical Module, generation 3 but have no requirements for PMT and vPvM-substances. It was decided that these new CLP classifications shall be introduced in the Chemical Module generation 3 that contains general requirements regarding use of chemicals in the manufacture of pulp and paper. Before amendment, the Chemical Module will, however, be sent to mini-open consultation to get some feedback on potential consequences of the new hazard classes.

4.3.9 Comments to the background, in detail

No consultation comments received.

5 Discussion and conclusion

The consultation proposal of Nordic Ecolabelling's criteria for Greaseproof paper, version 5, was very ambitious regarding energy and greenhouse gas requirements. The areas that had been highlighted as the biggest changes compared to generation 4 received the most comments, namely stricter requirements for:

- energy (O5) and greenhouse gases (O6 and O7)
- emissions to air and water (O8)
- silicones used for coating (O10)
- function properties of the product (O13)
- packaging (O16 and O17)

After the public consultation, the level of ambition has eased a bit, but the adjustment of the requirements still means that the environmental profile of the Nordic Swan Ecolabel greaseproof paper is raised considerably, especially with regard to energy and climate. The response to major changes in the Criteria is following:

- Energy requirements (O5). Many manufacturers commented that the tightening of reference value for fuel is too strict and difficult to meet. After the public consultation, reference value for fuel have been eased a bit, from 2500 kWh/ADt to 3000 kWh/ADt. The tightening from 3500 kWh/ADt to 3000 kWh/ADt (from gen 4 to gen 5) can be considered reasonably high (16%) but is based mainly on the licence data. Also note that although the reference value is tight, the final

⁴ https://eur-lex.europa.eu/eli/reg_del/2023/707

score calculation provides flexibility (15% above the optimal ratio) that Nordic Swan Ecolabel (NSE) greaseproof paper product needs to meet.

- Requirements for greenhouse gases (O7). Many manufacturers criticized that the proposed limit value for CO_{2e} of 700 kg/ADt is too strict. After the public consultation, the requirement has been reviewed. The structure is the same as in the consultation proposal, but the limit value has been eased slightly, from 700 to 900 kg/ADt. In the consultation proposal, the requirement for greenhouse gas emissions was reformulated to only include emissions of greenhouse gases originating from fuel used for process heat. Previously, CO_{2e} emissions from both fuel and electricity use were included in the requirement, which means that the limit values are no longer comparable between generation 4 and 5 of the criteria.
- Regarding requirements for silicone coating of greaseproof paper (O10), the limit value for impurities of D4, D5 and D6 is practically in the same level as in the open consultation but due to a change in calculation from emulsion to on dry active silicone basis, the limit value has been adjusted from 400 ppm to 1000 ppm for each substance, respectively. The calculation on dry silicone basis is done to make the calculation easier and to avoid dilution of the commercial product. The total content of D4, D5 and D6 has been removed after the consultation. While the new limit value may appear to reduce the level of ambition, it actually result in a significant tightening of the limit value due to revised functional units and is, thus, considerably stricter than in the previous generation.
- After the consultation, the ban on 34 bisphenols⁵ has been introduced in the requirement in line with Nordic Ecolabelling's guidelines for chemicals. The ban is set to bisphenols that have been identified for further EU regulatory risk management by ECHA. Besides bisphenol A, bisphenol F and S have been prohibited from use in coating agents, retention agents, flocculants in the Chemical Module of Paper Products, generation 3. Now the requirement is extended to these 34 bisphenols that are known or potential endocrine disruptors for the environment or human health, or can be identified as toxic to reproduction.
- The requirement for functional properties of the product (O13) has been removed mainly due to lacking standardized methods for the most critical paper's functions such as resistance to oil and grease and non-stick performance in silicone coated papers. However, requirement that it must be possible to reuse baking paper remains in the Criteria and has been moved to the requirement O3.
- The requirement for recycled raw material in plastic packaging (O14, after consultation O13) remains the same as in the open consultation. If plastic packaging is used the amount of recycled material is 35%. By setting requirement for recycled content in the packaging, Nordic Ecolabelling wishes to be prepared for future legislation.
- The requirement for labelling (O17, after consultation O16) has been adjusted: if the product or its packaging carries information on sorting and recycling of

⁵ Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section2.1:Bisphenols for which further EU RRM is proposed – restriction https://echa.europa.eu/documents/10162/c2a8b29d-0e2d-7df8-dac1-2433e2477b02

the product, then the information must comply with established sorting and recycling systems available in the country in which the product is to be sold. It is also emphasized in the requirement, that for business-to-business, labelling is allowed to be placed in other places than on the packaging, e.g. on the declaration of compliance document.

All major changes in the requirements after the public consultation are presented in the Table 6 below.

Table 6: Major changes in the requirements after the open consultation.

Requirements in the open consultation	Adjustments after the open consultation				
Consultation					
O5 Energy	Reference value for fuel has eased from 2500 kWh/ADt to 3000 kWh/ADt.				
O7 Emissions of greenhouse gases	Limit values for emissions of greenhouse gases has adjusted from 700 till 900 kg/ADt.				
O8 Total emission score	Reference value for NOx has adjusted from 0.5 to 0.8 kg/ADt.				
O10 Chemicals used for impregnation and coating	The limit value for the impurities D4, D5 and D6 has adjusted from 400 ppm in the silicone emulsion to 1000 ppm per dry silicone. Impurities must be calculated on the dry content of silicone to avoid dilution of the commercial product. The limit value will therefore be almost the same as in the consultation and much stricter than in the previous generation. The total content of D4, D5 and D6 has been removed.				
	Ban on 34 bisphenols ⁶ has been included in the requirement to be in line with Nordic Ecolabelling's guidelines for chemicals.				
O11 Colourants and	Clarifications regarding colourants and printing inks used in greaseproof				
printing inks	paper: It is only printing inks that need to comply with EuPIA "Good Manufacturing Practices (GMP) - Printing Inks for Food Contact Material" and have a Statement of Composition. These requirements have been removed for colourants as they are not relevant. For colourants, BfR's recommendation XXXVI. with the subsequent subdocuments such as BfR's recommendation XXXVI/2 applies.				
O13 Function properties	The requirement for functional properties of the product (O13) has been removed mainly due to lacking standardized methods for the most critical paper's functions such as resistance to oil and grease and non-stick performance in silicone coated papers. However, the requirement that "It must be possible to reuse baking paper, see also O16 Labelling" has been moved to the requirement O3 regarding greaseproof paper.				
O17 Labelling	The requirement for labelling (after consultation O16) has been adjusted: if the product or its packaging carries information on sorting and recycling of the product, then the information must comply with established sorting and recycling systems available in the country in which the product is to be sold. It is also emphasized that for business-to-business, labelling is allowed to be placed in other places than on the packaging, e.g. on the declaration of compliance document.				

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⁶ Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section2.1:Bisphenols for which further EU RRM is proposed – restriction https://echa.europa.eu/documents/10162/c2a8b29d-0e2d-7df8-dac1-2433e2477b02