

Consultation response for
Window Replacement



Generation 1

October 2024

Nordic Swan Ecolabelled Window Replacement – Consultation response
118 Window replacement generation 1.0, October 2024

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1 Summary

During 2024 the new criteria for Nordic Swan Ecolabelled Window Replacement have been developed and sent on consultation. The number of mandatory requirements is 18.

The focus areas of the consultation have been:

- The product group definition
- Requirement O4 Identification of hazardous materials
- Requirement O5 Handling of identified hazardous materials
- Requirement O8 Recycling of float glass
- Requirement O10 Ecolabelled windows

The proposed criteria were sent for consultation and Nordic Ecolabelling received a total of 12 consultation comments. The products group definition, the requirements regarding the identification and handling of hazardous substances, recycling of float glass and the requirement regarding the share of NSE Windows in the service were most frequently commented.

Specific requirements were commented in detail by authorities, specialists and industry associations mainly commenting their areas of special interest.

Most important changes due to the consultation.

- O5 Handling of identified hazardous substances: Based on the consultation input NSE have found that it is not always reasonable to require that all hazardous substances are removed by a remediation contractor. The materials that are to be remediated can often be very small amounts in a window replacement project, meaning that it can sometimes be better handled by the contractors already present on site. It has been clarified that remediation of hazardous material can be conducted by both internal and external qualified personnel.
- O6 Moisture and ventilation assessment: It is made clear that the licensee only has the obligation to inform the customer about potential issues regarding moisture and ventilation. They are not obliged to perform detailed surveys as they typically do not have the qualifications for this.
- O10: Nordic Swan Ecolabelled windows: Based on the consultation input NSE see that the ambition level of the requirement was defined without taking into account that a relatively large share of installed windows has special requirements. As a significant share of installed windows have special demands related to e.g. fire, noise, laminated or hardened glass (for safety reasons), it is not possible to require a share of ecolabelled windows of 90%. The level is instead set to 50 % in this first generation of the criteria.
- O14 Warranty: The warranty for rot damage in the wooden parts of the window and window door is set to 10 years for both B2C and B2B. For B2C it suggested to be 20 years on the consultation.

Editorial changes were also made to clarify the intent and documentation of the requirements.

2 About the consultation

The proposed criteria were sent for open consultation from the 12th of June to 4th of September 2024.

The proposed criteria sent on consultation were developed by Nordic Ecolabelling in collaboration with representatives from research and industry within the fields of recycling of glass and other materials, window replacement companies, hazardous materials handling as well as specialists within recycling, reuse, and waste handling.

Nordic Ecolabelling announced the consultation on its Nordic and national websites and in newsletters. Official call for comments emails were sent to different types of stakeholders: Recycling and waste handling companies and contractors, building owners, authorities, research institutes and environmental organisations.

In this compilation, all comments are collected and answered by Nordic Ecolabelling. The purpose is, in addition to collecting all comments, to show how external comments have affected the requirements. Nordic Ecolabelling is grateful for all the answers 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

The consultation was sent out to 12 stakeholders in Denmark, 37 in Norway, 47 in Sweden and 70 in Finland. In total it was sent out to 166 stakeholders. Table 1 shows the respondents from all countries.

Table 1: Compilation of consultation respondents

Country	Consultation body	Total
Denmark	Miljøstyrelsen	Denmark: 2
	Glarmesterlauget i Danmark	
Finland	Uusioaines Oy	Finland: 3
	The Finnish association of Flat Glass - Suomen Tasolasiyhdistys ry	
	The Confederation of Finnish Construction Industries RT	
Norway	Ruteretur AS	Norway: 2
	Norske Trevarer	
Sweden	Energimyndigheten	Sweden: 5
	Glassentrum i Sverige AB	
	RagnSells	
	Elitfönster	
	Mockfjärds	
Total		Total: 12

4 Comments to the criteria, in detail

Nordic Ecolabelling wishes to express gratitude for the responses given to the proposed criteria. Input from the industry is essential to obtain relevant criteria.

In the following all consultation responses are listed and answered. The individual comments from consultation bodies/stakeholders are collected and grouped in this section. The comments are handled according to the numbers of the requirements in the consultation draft criteria. Some consultation bodies have commented on several areas in the draft and comments are then sorted and divided to the relevant sections. Nordic Ecolabelling has responded to the consultation comments for each requirement and/or section. In the answers it is stated whether changes have been made or not and the relevant justification.

4.1 General comments

Ruteretur AS

Ruteretur AS støtter kravet om materialgjenvinning av glass fra kasserte isolerglassruter, noe Ruteretur har praktisert siden 2002. Det er svært uheldig at glass, som fremstilles av begrensede naturressurser som kvartssand, graves ned på avfallsdeponier når glass er en råvare som kan materialgjenvinnes i det uendelige. Videre er det viktig at isolerglassruter som er farlig avfall (for eksempel på grunn av PCB eller klorparafiner) leveres inn og håndteres som farlig avfall slik at miljøgifter gis en sikker sluttbehandling, etter at glasset er tatt ut.

Norske Trevarer

Supports the proposal.

The Confederation of Finnish Construction Industries RT

Hei, lausunnolla olevissa kriteeriedotuksissa viitataan standardeihin osin virheellisesti. Ehdotan, että tarkistatte standardiviitteet kokonaisuudessaan. Esimerkiksi standardi EN 113 on kumottu ja sen ovat korvanneet standardit EN 133-1, EN 133-2 ja EN 133-3.

English translation (conducted by Nordic Ecolabelling):

The criteria proposal refers to the standards incorrectly. I suggest that you check the standard references in their entirety. For example, standard EN 113 has been overturned and replaced by standards EN 133-1, EN 133-2 and EN 133-3.

Glarmesterlauget i Danmark

From the Glaziers Guild we would like to offer our help with information regarding Danish guidelines, regulations and conditions.

We often find the best guidelines is made in cooperation with different stakeholders with specific knowledge of the subject.

Energimyndigheten

Energimyndigheten tillstyrker förslag till nya miljökriterier för Svanenmärkt Fönsterbyte 118.

Nordic Ecolabelling's comments

Nordic Ecolabelling appreciates the comments given and will answer in further detail in the sections below regarding the specific requirements.

Nordic Ecolabelling does not see any references to e.g. EN 113 in these criteria. We believe this comment was meant for the consultation regarding the criteria for Windows and exterior doors and the comment will therefore be handled in relation to that consultation.

4.2 Definition of the product group and definitions

4.2.1 What can carry the Nordic Swan Ecolabel?

Miljøstyrelsen Danmark

Produktgruppedefinition: Udskiftning af vinduer!

Miljøstyrelsen bemærker til side 7 i afsnittet "Product group definition", hvor der står: *The main focus of these criteria is to establish a circular business model with a circular material flow of float glass into new float glass.*

Det er prisværdigt, at Nordisk Miljømærkning har fokus på det cirkulære materialeflow af vinduesglas til ny vinduesglas. Spørgsmålet er om det alene kan retfærdiggøre denne produktgruppe, fordi det ikke altid er den miljømæssigt bedste løsning.

Nordisk Miljømærkning anfører da også:

Nordic Ecolabelling acknowledges that renovating and upgrading older windows can in many cases be more resource-saving than replacing and installing new ones.

Nordisk Miljømærkning risikerer at blive kritiseret for at tilgodese salg af flere svanemærkede vinduer (eller bare 'køb nyt'-tankegangen), frem for at stile efter at opnå den miljømæssigt bedste løsning som i stedet kunne indebære en eller flere løsninger evt. i kombination. Det kunne fx være udskiftning af vinduesruden, påsætning af forsatsvindue og/eller reparation af vinduesrammen. I forhold til cirkulær økonomi vil alene en vinduesudskiftning ikke altid være den miljømæssigt bedste løsning.

Udskiftning af ruden og bevarelse af selve vinduesrammen vil i nogle tilfælde være mere relevant, og i andre tilfælde vil reparation/ renovering af vinduets ramme også kunne bidrage til en miljømæssigt bedre løsning, kombineret med et forsatsvindue.

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Nordisk Miljømærkning opfordres derfor til at overveje, at produktgruppedefinitionen ændres til også at omfatte rådgivning omkring den bedste løsning for kunden (økonomisk) og for miljøet. I langt de fleste tilfælde vil den håndværker, der udskifter et vindue også være den, der reparerer vinduet, påsætter en forsatsvindue eller udskifter vinduesruden.

Nordic Ecolabelling's comments

Nordic Ecolabelling acknowledges that renovating and upgrading older windows in some cases can be more resource-saving than replacing and installing new ones. This can for instance be the case in older buildings or buildings worthy of preservation. However, a very large share of the windows currently replaced are from the 60's and 70's. These often do not have the quality to be repaired and in addition there is a relatively high risk that they contain hazardous substances. For these types of windows, the potential for renovating and energy upgrading is low.

Furthermore, the installation companies that conduct numerous window replacement and have this as their core business are typically not performing renovation / upgrading of the existing windows. This is also the companies where it is reasonable to have a very organized setup for handling the window glass due to the amounts generated. A carpenter conducting a window replacement now and then will typically not be a potential license holder. Nordic Ecolabelling sees that the decision to replace or renovate is out of our steerability as the companies that we expect to have as licensees are not performing both services.

4.2.2 Definition of the product group

Nordic Ecolabelling's comments

See section 4.2.1 above as they are closely related.

4.2.3 Definitions

RagnSells

Laminated glass

Vanligt förekommande även i dörrar och fönster som sitter lägre än 80 cm över golvet.

Nordic Ecolabelling's comments

We have updated the definitions regarding laminated glass.

4.3 Comments to the chapters and individual requirements

4.3.1 6.1 General requirements

O1 Description of the service

Mockfjärds

Inga konstigheter

Nordic Ecolabelling's comments

No answer needed.

4.3.2 Prior to replacement

O2 Measurement of new windows and doors

Mockfjärds

Inga konstigheter

Nordic Ecolabelling's comments

No answer needed.

O3 Identification of hazardous materials

Miljøstyrelsen Danmark

Identificering af farlige materialer:

Prioriteringen af farlige stoffer, herunder chlorparaffiner (SCCP og MCCP) virker fornuftig. Det kan tilføjes som intern kommentar i MST, at MST har udarbejdet følgende strategi for risikohåndtering af MCCP/SCCP:

<https://prodstoragehoeringspo.blob.core.windows.net/992671fd-48da-4dc8-b055-523a54e23863/6%20-%20chlorparaffiner.pdf>

Med udgangspunkt i denne har MST undersøgt forekomsten af SCCP og MCCP i byggematerialer (<https://www2.mst.dk/Udgiv/publikationer/2016/02/978-87-93435-34-6.pdf>) og kan konstatere at MCCP og SCCP findes i et relativt højt antal prøver af gamle fuger, maling, gulvbelægning og klæber. MCCP er et PBT-stof og fremgår af EU's kandidatliste. SCCP er et PBT stof og er reguleret af POP-forordningen. Derudover er det mistænkt for at være kræftfremkaldende.

Glassentrum i Sverige AB

Position: Accept the proposal with the following comments:

Vi har kommentarer gällande O3 och bakgrunden där: Vi anser att man bör hänvisa till de dokument som finns (Svensk Planglasförening, Ruterretur i Norge mm) gällande isolerglas som innehåller PCB, vilka årtal som gäller och det finns även en lista med olika tillverkare där det talar om vilka årtal det är tillverkat med PCB och även om det inte finns PCB i deras isolerglas, det finns även på ett bra sätt beskrivet vilken typ av isolerglas som inte innehåller PCB, detta bör man kunna använda sig av istället för att testa alla isolerglas. I Sverige är det inte Glasentrum som gör en utredning gällande klorparaffiner utan det är Svensk Planglasförening och Glasbranschföreningen som står bakom denna utredning. r att testa alla isolerglas. I Sverige är det inte Glasentrum som gör en utredning gällande klorparaffiner utan det är Svensk Planglasförening och Glasbranschföreningen som står bakom denna utredning.

Mockfjärds

Kommer att fördyra processen och konsumentpriset kommer att öka. Annars genomförbart. Mockfjärds anser det vara ett rimligt krav.

Ruterretur AS

....().... Videre er det viktig at isolerglassruter som er farlig avfall (for eksempel på grunn av PCB eller klorparaffiner) leveres inn og håndteres som farlig avfall slik at miljøgifter gis en sikker sluttbehandling, etter at glasset er tatt ut.

Nordic Ecolabelling's comments

Nordic Ecolabelling wishes to clarify that the requirement already states the following with regard to alternatives to testing (e.g. the list of PCB in the frames of double glazing conducted by Svensk Planglasförening and Ruteretur in NO): "The method used can include both analysis of samples and e.g. risk assessments based on reports/surveys that have determined the presence of certain substances (PCB, asbestos, chloroparaffins etc.) for the material in question based on e.g. production year or producer."

It is furthermore clarified that if there is suspicion of hazardous substances and the content cannot be determined by the methods mentioned above, the material in questions must be handled as hazardous waste.

It is clarified that both windows with caulk and the sealant between wall and window frame must be analysed for hazardous substances.

It is corrected in the background text that Svensk Planglasförening and Glasbranschföreningen in Sweden is currently assessing the situation in Sweden regarding chloroparaffins.

O4 Identification and marking of window glass

Miljøstyrelsen Danmark

Identificering og afmærkning af vinduesglas:

Miljøstyrelsen anbefaler, at det skal fremgå tydeligt, hvem der skal udføre markeringen.

Glarmesterlauget i Danmark

It is stated in the draft that all personal working with dismantling windows must have an education to identify glass types. Furthermore it is stated that:

"Glascentrums (SE) "Utbildning Glasinventerare" is considered as sufficient education. Other educational programs must be approved by Nordic Ecolabelling."

I Denmark we have education system for Glaziers where they are trained for 3.5-4.0 years before becoming a certified and educated tradesman.

During the education the trainees will be educated in correct use of glass types and identification of glass types. Therefore we find that the Danish glaziers education should be preapproved along with the 2 days Swedish course.

Laminated glass is reusable for glass

It is stated in the documents that laminated glass can't be reused for float glass. This is not correct.

Laminated glass can be separated (in two fractions, glass and interlayers) and reused for float glass and container glass not only glass wool as stated in the draft. The interlayer is reused as binder in paint.

Reiling in Denmark and Germany have facilities for this exact purpose.

Mockfjärds

Ragnsells tar detta Ansvar i vårt fall eftersom "Dismantling" inte görs på fältet. Skall denna process styras av vem som gör det? Annars motsätter vi inte att det skall göras men att det definieras vem som skall göra det.

Om installatör gör det innebär det högra installationskostnad.

Nordic Ecolabelling's comments

Nordic Ecolabelling has clarified in the requirement that it is the personal at the licensee that has the responsibility to identify and mark the glass.

The Danish glazier's education is accepted as a mean of documentation. It has been clarified that laminated glass in some facilities can be separated (in two fractions, glass and interlayers) and reused for float glass and container glass, not only as glass wool as earlier stated.

This requirement is not related to dismantling the windows but is a mean of identifying glass types and hazardous waste before transport is conducted by the waste contractor. Therefore, the responsibility belongs to the window replacement company.

O5 Handling of identified hazardous materials

Miljøstyrelsen Danmark

Håndtering af identificerede farlige materialer:

Ingen bemærkninger

Garmesterlauget i Danmark

The drafts states: "Nordic Ecolabelling expects that in some cases the hazardous material screening will not show any findings that leads to the necessity to hire a remediation contractor on site"

The Danish working environmental rules do not state any requirements for the use of remediation contractors even though there should be hazardous substances in the window or caulk.

The Danish law states that the people conducting some of the work regarding hazardous materials should be educated.

The requirements for using a remediation contractor are thereby an expensive and troublesome requirements way above target and Danish law.

Mockfjärds

Se O3

Nordic Ecolabelling's comments

Based on the consultation input Nordic Swan Ecolabelling has found that it is not always reasonable to require that all hazardous substances are removed by a remediation contractor. The materials that are to be remediated can often be very small amounts in a window replacement project, meaning that it can sometimes be better handled by the contractors already present on site. It has been clarified that remediation of hazardous material can be conducted by both internal and external personnel. The licensee must document that the relevant personnel have the qualifications (education) to perform the work. Relevant courses within work environmental education can be an example of relevant education. Being educated as e.g. carpenter or glazier is not sufficient education. Furthermore, this work must be documented in a journal/logbook or a remediation report.

O6 Moisture and ventilation assessment

Miljøstyrelsen Danmark

Vurdering af fugt og ventileringsforhold: (ved udskiftning af vindue):

Kriteriet er vigtigt (for kunden), da en udskiftning/renovering af et vindue vil medføre en bedre isolering, men også en mere fugttæt løsning, der vil kræve ændringer i luftudskiftningen hos kunden. Miljøstyrelsen foreslår, at kravet (helt naturligt) også omfatter B2B, når produktgruppen både omfatter B2C og B2B.

Mockfjärds

Ansvar hos fönsterbytaren kan endast sträcka sig till att ”hänvisa till auktoriserat ventilationsföretag” Rekommendation, ej krav.

Som installatör bistår vi självklart medrekommendationer gällande ventiler, öppningsbara fönster osv. En komplett analys av ex byte av luft i fastighet utföres av expert på ventilation.

O6 forts Fel att utesluta B2B?

Nordic Ecolabelling's comments

It is assumed that a professional window replacement company has knowledge of how one's service affects the existing building and can give recommendations regarding whether measures in the ventilation system should be carried out. This knowledge must always be conveyed to customers. In B2C it is particularly important as The Nordic Ecolabelling believes that it is not reasonable to expect a private customer to consult a ventilation expert in connection with window replacement. In cases where a window replacement is carried out B2B, Nordic Ecolabelling understands that the ventilation system can be much more complex. In addition, it then becomes important to consult an "authorized ventilation company". The proposal to include B2B is therefore considered reasonable and is implemented in the requirement. Furthermore, the requirement has been rewritten but the overall the content is the same. It is made clear that the licensee only has the obligation to inform and not perform more detailed surveys that they do not have the qualifications for.

4.3.3 Circular economy

O7 Storing and packaging of float glass

Miljøstyrelsen Danmark

Opbevaring og pakning af vinduesglas: Kriterie O7 bør ændre titel til 'Storage and packaging of replaced [window glasses], windows and new [window glasses] or windows', og tilføje et ny punkt: 'Instructions from the [window glass or] and window manufacturer should be followed on how to store new [window glasses or] and windows after arrival from the [window glass or] window manufacturer.'

Årsagen er, at vinduesglasset sjældent vil blive adskilt fra rammen på byggepladsen (medmindre der er tale om udskiftning af vinduesglasset). Såfremt produktgruppen også omfatter udskiftning af vinduesglasset (hvis muligt i den konkrete byggesag), skal der være et informationspunkt mht. opsamling og opbevaring af fugemateriale (der kan indeholde farlige stoffer fra ramme) såvel som vinduesglasset.

Mockfjärds

En självklarhet. Instruktioner kommer från samarbetspartner.

Nordic Ecolabelling's comments

Based on the input Nordic ecolabelling has decided to change to title of the requirement to "Storing and packaging of replaced windows and window doors".

The criteria will not include renovation and/or replacement of window glass on site.

O8 Recycling of float glass

Miljøstyrelsen Danmark

Genanvendelse af vinduesglas:

Der skrives følgende under O8 B:

Fire resistant glass, wire glass and float glass contaminated with PCB or FA is exempted from this requirement.

Hvis der findes PCB i vinduesglasset er der en risiko for at det også forefindes i karmen og væggene rundt om vinduerne. Hvordan sikres det, at PCB fra rammen/væggene rundt om glasset, der udskiftes, ikke kommer til at kontaminere et evt. nyt glas der indsættes.

Miljøstyrelsen foreslår at ændre: "agreement/contract" til "Signed declaration" by the float glass producer stating the utilization rate of remanufactured glass which must be above 90%..."

Uusioaines Oy

At Uusioaines Oy we produce cleaned and color-sorted raw materials by recycling glass waste in Forssa, Finland. Uusioaines Oy recycles the majority of glass waste in Finland, and we accept almost all glass waste for recycling. Main types of recycled glass waste are packaging and float glass. Considering float glass, we already recycle float glass of several types. 100% of incoming glass waste is recycled into use. Part of the recycled glass is sold to packaging and float glass manufacturing and part of recycled glass is sold to glass wool manufacturing or used by us for foam glass manufacturing. Uusioaines Oy is part of Foamit Group, which recycles glass in Finland, and manufactures foam glass in Finland, Sweden and Norway.

Considering the Nordic Swan Ecolabelled Window replacements, we are leaving a consultation comment regarding the traceability of recycled window glass. The traceability requirements of recycled window glass are currently not outlined clearly in the developed criteria for Nordic Swan Ecolabelled Window replacements.

Currently the requirements presented in the webinar 20.8.2024 state the following:

- All float glass identified as suitable for recycling into new float glass must be sent for recycling to new float glass. It must be documented/confirmed by the glass manufacturer that minimum 90% of the float glass sent from the waste contractor is used for manufacturing of new float glass.
- Float glass identified as not suitable for recycling into new float glass must be sent for recycling to other forms of glass products such as glass wool, glass foam, or container glass.

From our perspective as a glass recycler (waste contractor), we see that agreeing on the recycling amounts on a mass-balance -level is possible. We would be able to agree that 90% of the amount of incoming glass under window replacement contracts identified as suitable for recycling into new float glass is sold back to float glass manufacturing and the rest 10 % is recycled back to other glass products. In this instance, we could not confirm full traceability, so that the float glass sold back to float glass manufacturing is the specific window glass that we have received for recycling from the window replacement licensee. Considering the expected volumes of incoming window glass from window replacement, having complete traceability of

the glass is not feasible. We hope that this could be specified in the criteria for Nordic Swan Ecolabelled Window replacements.

The Finnish association of Flat Glass - Suomen Tasolasiyhdistys ry

Suomessa ei ole toimivaa ikkunoiden kierrätysjärjestelmää kuluttajille. Suomessa on ikkunalasijätteen kuljetuspalvelu, vastaanotto ja puhdistusprosessi ikkunalaseille: Uusioaines Oy, Forssa. Jos ikkunalasi saadaan kerättyä puhtaana (yleensä yritys), siitä saadaan tehtyä uutta tasolasia/ikkunalasia. Suomessa on toiminut ainakin yksi yrittäjä, joka on kerännyt ikkunalasin myös kuluttajalta/rakennusyryyksiltä/ikkunatehtailta ja toimittanut erotellun lasin Uusioainekselle ja se on kelvannut uuden ikkunalasin käyttöön, mutta toisinaan mennyt myös lasivillan valmistukseen. Jotkut raksayritykset keräävät kokonaiset ikkunat (myös pokat) ja toimittavat ne kierrätykseen Uusioainekselle, mutta niistäkin lasit menevät lähinnä muuhun käyttöön kuin uudeksi ikkunalaseksi. Toiminta on siis kirjavaa, mutta sitä kyllä on. Uusioaines Oy:ltä joku voinee antaa enemmän tietoa.

Lasit, jotka menevät alueellisiin jätehuoltolaitoksiin ei yleensä kelpaa enää kierrätykseen epäpuhtauksien takia.

English translation (conducted by Nordic Ecolabelling):

Finland does not have a functioning window recycling system for consumers. In Finland there is a window glass waste transport service, reception and cleaning process for window glass: Uusioaines Oy, Forssa. If the window glass has been collected clean (usually a company), it can be made into a new flat glass/window glass. There has been at least one entrepreneur in Finland who has also collected the window glass from the customer/construction and delivered the separated glass to Uusioaines. This glass has been suitable for recycling to new window glass, but sometimes it has also been delivered to manufacturers of glass wool. Some construction companies collect whole windows (including frames) and deliver them for recycling to Uusioaines Oy. But from these too, the glasses go mainly for use other than new window glass. As described, the recycling varies, but it does exist. Someone in Uusioaines Oy can probably provide more information.

Glass, that go to regional waste disposal facilities, is usually no longer suitable for recycling due to impurities.

Glarmesterlauget i Danmark

Recycling of glass in Denmark

We have a widely available collection system for float glass in Denmark, the system has been operational for twenty years, and is collecting, cleaning and sorting glass waste.

The glass is either reused at Ardagh for container glass or Isover for Glass wool. Ardagh is placed 10 kilometers from the treatment plant. Isover is placed in the Vamdrup, Denmark.

The reuse of glass waste in Denmark reduces the needed transportation of the cullets and thereby minimizing the environmental impact.

Therefore, we find the demand of at least 90% of glass waste should be reused for float glass as a unreasonable demand, and find that it will be better to use the already operational waste collecting and reusing systems.

lecting and reusing systems.

Mockfjärds

Ligger i samarbejdet med ovan.

Nordic Ecolabelling's comments

Nordic Ecolabelling acknowledges Uusioaines comment about difficulties of tracing the float glass sent from one specific window replacement company to the float glass producer. Nordic Ecolabelling does not demand full traceability of the float glass from a specific window replacement site to the glass producer, but the route and flow of the glass must be documented. It has been clarified in the requirement that the following must be documented:

- *Total amounts of float glass received by the waste contractor from the licensee, with statistics about the share suitable for float glass recycling and other forms of recycling.*
- *Amounts of float glass from the licensee sent by the waste contractor for manufacturing of new float glass and other recycling.*
- *Signed declaration from waste contractor that 90 % of the float glass identified as suitable for float glass recycling received from the licensee is prepared for new float glass production and sold back to a float glass producer.*
- *Documentation /confirmation /signed declaration from the float glass producer that minimum 90% of the float glass sent received from the waste contractor is used for manufacturing of new float glass.*

Nordic Ecolabelling understands that there are alternative uses for the recycled float glass in the already existing infrastructure (e.g. glass wool and foam glass). However, Nordic Ecolabelling sees a potential to keep the high-quality float glass at the highest possible level in the waste hierarchy and thereby conserving valuable resource for the future. In addition, there are still large unused resources of glass available in the market that are currently not used but instead ends up in landfill.

Based on the consultation input Nordic Ecolabelling has made some specific clarifications of the requirement:

- *It is made clear that it is windows contaminated with PCB or FA that are exempt from the calculation (and not the glass itself). The reason is that the float glass is typically pure and has no contaminations of hazardous substances. These are usually found in the window frames and parts around the windows. As the glass is separated from its frames without destruction of the frames PCB or any other substance from the frame cannot emit to the glass. The criteria refer to the service for the replacement of the whole window, not the glass panes.*
- *Nordic Ecolabelling changed the wording from agreement /contract to signed declaration in the section annual reporting according to Miljøstyrelsen Danmarks suggestion.*

O9 Waste management

Miljøstyrelsen Danmark

Affaldshåndtering:

Ingen bemærkninger.

Glarmesterlauget i Danmark

It is stated that waste from window replacement must be sorted in the following fractions: Wood, Plastic (packaging), Mineral Wool and Waste for incineration. The list of fractions seems incomplete. The list should at least contain Aluminum and plastic (non-packaging) since we have windows where window sills and frames are made of either: wood, plastic, aluminum or of combination of aluminum and wood.

Furthermore the criteria should treat the matter of how to dismantle and reuse the windows sills and frames consisting of a composition of wood and aluminum. es consisting of a composition of wood and aluminum.

Mockfjärds

Se pkt O7 och O8. Övrigt läggs i 2 Big bags för att hos samarbetspartner separera övrigt till 100%.

Nordic Ecolabelling's comments

The requirement has been updated to include all plastic and aluminium. It is clarified in the requirement that "if it can be documented in a waste report that some fractions are sorted by the waste management company after collection of the waste, this solution is accepted".

4.3.4 New Windows and installation materials

O10 Nordic Swan Ecolabelled windows

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Allt detta ligger helt och hållet i utgångspunkt var beslutet och nivåer gällande de kriterier som kommer att fastställas avseende Svanenmärkt produkt.

Brand, ljud, 2-glas, produkter med laminerat glas, ex helglasad fönsterdörr, härdat glas osv gör att föreslagen nivå ej kan uppnås.

Ex en helglasad fönsterdörr kräver lamineratglas påverkar avståndet mellan glas och förändrar mängden isolerande argongas, vilket leder till ett högre U-värde.

Med hänsyn till ovan är vår rekommendation är att max 50% av produktmixen är Svanenmärkt.

Elitfönster

Kan tycka att kravet på att nya monterade fönster ska vara Svanen-märkta känns girigt.

Det finns många sätt att påvisa att fönster håller bra kvalitet på prestanda, innehåll samt hållbarhet utan att de behöver vara certifierade i Svanen, känns mer som en pådrivare för era egna system.

Nordic Ecolabelling's comments

Nordic Ecolabelling sees that the requirement was defined without taking into account the windows with special requirements for the glass type used (e.g. fire, noise, laminated or hardened glass (for safety reasons)). This primary challenge is that it is more difficult to produce these windows with the same low U-values as the standard products.

In conclusion the level of the requirement has been lowered from 9 % to: "80% of the replaced windows and window doors (e.g. balcony and terrace doors), covered by the harmonized product standard EN 14351-1, must be Nordic Swan Ecolabelled". In addition, windows with the following special requirements can be excluded from the calculation: Fire, noise, 2-glas products for holiday homes, laminated glass and hardened glass.

Nordic Ecolabelling recognizes that there are other ways of documenting good environmental performance for windows than the Nordic Swan Ecolabel. However, it is found that is the best way to document a good (environmental) performance in the entire lifecycle and avoid implementation of a large number of other requirements in the criteria that would then have to be documented for all windows installed.

O11 List of installation materials

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Inga konstigheter

Nordic Ecolabelling's comments

No answer needed.

O12 Chemical products and construction products in installation

Miljøstyrelsen Danmark

Kemiske produkter og byggevarer anvendt ved installering:

Det er ikke klart hvad der menes med "compliant with PT 6 (in-can) and PT 7 (dry-film)". Miljøstyrelsen bemærker at det klart bør fremgå, at indeholdte konserveringsmidler enten skal være godkendte eller under vurdering i henhold til reglerne i BPR.

Det er ikke klart, hvordan grænseværdierne i tabel 4 og 5 er udledt. Miljøstyrelsen bemærker, at koncentrationsgrænsen for BIT (500 ppm) overskrider den specifikke koncentrationsgrænse for klassificering som Skin sens 1A på 0,036% (360 ppm) fastsat under CLP.

Miljøstyrelsen bemærker, at der også er andre godkendte konserveringsmidler, som ikke fremgår af listen. Kriteriedokumentet bør klargøre hvorfor der for nogle konserveringsmidler er fastsat grænseværdier, men ikke for andre.

Mockfjärds

Krav på spec från leverantörer som stöd för Appendix. Inga konstigheter

Nordic Ecolabelling's comments

The requirements defined for all chemical products and construction products in installation are aligned with the requirements found in the criteria 089 for New Buildings.

The total content of preservatives is regulated for indoor products and in addition isothiazolinone compounds are regulated at an even lower level due to their

problematic properties. The approach of the substances regulated, and the threshold limit levels were set in accordance with the levels in generation 3 of the criteria for Nordic Swan Ecolabel paint and varnish.

Further details regarding specific threshold limits and exemptions can be found in the background for the criteria for New Buildings:

<https://api.svanemaerket.dk/api/docs/CriteriaDocumentFiles/9946>

4.3.5 Quality and environmental management

O13 Quality control of the installation

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Slutgenomgång och digital signering stödjer detta.

Elitfönster

Det som slår mig att väldigt lite omfattar funktionen som det nya montaget ska uppfylla i form av prestanda.

Felaktigt montage utgör en mycket stor del av byggfelen som både är kostnadsdrivande och har stor påverkan på miljön i slutänden.

En utredning av dåvarande SP, numera RISE, visar att om montage utförs felaktigt uppstår stora risker med vattenskador som kan påverka inte bara byggnadens skick utan även hälsa och miljö.

Det är inte lätt att uppnå ett montage som är tillräckligt vattenavvisande för att uppnå byggnadens krav på rimlig ekonomisk livslängd.

Det är fastställt att stor andel av monterade fönster i byggnader inte är tillräckligt luft- och vattentäta, och att montören ofta inte följer tillverkarens anvisningar av kostnadsskäl.

Ett tätt montage är omständligare och dyrare än ett ”traditionellt”, kräver bland annat sekundärtätning under karmunderstycke samt diffusionsspärr mot insida. Kriterierna borde beakta och ställa krav på metod för montage för att säkerställa montagets funktion i vägg över tid.

Nordic Ecolabelling's comments

Nordic Ecolabelling agrees that correct installation is crucial for the function and lifetime of the product. Installation must be done in accordance with the producer's installation guidance. Nordic Ecolabelling do not wish to specify the methods of installation as this can vary from producer to producer and country/region. The criteria ensures that control must be conducted by the installer including control of air tightness, fixing of the windows, properly performed insulation, control of rain density, noise level (when a requirement from the end customer), and fire safety when relevant. Furthermore, control must be documented by supervisor and yearly thermography tests must be performed. In summary, Nordic Ecolabelling has concluded that this is sufficient in terms of quality control of the installation.

O14 Warranty

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Vi motsätter oss förslaget att införa ett garantikrav på 20 år mot röta enligt de föreslagna kriterierna.

1. Nuvarande garantivillkor

Mockfjärds Fönster lämnar idag en 10-årig garanti på de produkter vi tillverkar. Denna garanti täcker allt som krävs och förväntas av ett fönster – att det stänger ute väder och vind, att isolerglasets håller tätt, bibehållen kvalitet på trävirket samt funktionaliteten i öppning och stängning. Om någon av dessa funktioner skulle brista inom garantitiden, åtar vi oss att reparera produkten eller vid behov ersätta den med en ny. Garantin täcker dessutom normala kostnader för montage och hjälpmedel som kan behövas vid utbyten.
vas vid utbyten.

2. Vikten av tydliga och meningsfulla garantier

Vi anser att en garanti ska innehålla en utfästelse som verkligen kan betyda något för köparen. Det är viktigt att garantin inte urholkas genom alltför många frånskrivningar. Detta riskerar att garantin i praktiken blir värdelös.

Vi kan se att kollegor i vår bransch inkluderar olika förbehåll i sina fönstergarantier som minskar köparens möjligheter att åberopa garantin. Exempel på sådana förbehåll kan vara att:

- Garantin lämnas endast på delar av sortimentet
- Garantin lämnas endast på vit kulör
- Garantin omfattar inte lyfthjälpmedel, färdigställande av fönsteranslutningar etc.
- Garantin gäller inte om produkten reparerats eller justerats av annan än fönstertillverkaren
- etc

3. Risk för förvirring på marknaden

Mockfjärds Fönster menar att vi riskerar att förvirra marknaden om det görs garantiutfästelser på konsumentprodukter som i praktiken inte är värda något. En tävling på marknaden vilken som lämnar längst garantier, menar vi inte är seriös, så länge garantierna inte är värda något för köparen.

Vidare bör garantierna vara samma för B2B som B2C.

Kommentar:

Vi menar att en 10-årig garanti är mer realistisk och detta skulle säkerställa att garantin har en praktisk betydelse och att den inte urholkas av orimliga krav på underhåll eller andra förbehåll som gör den svår att utnyttja. En garantitid är heller inget bevis på en produkts livslängd.

Vid 20-års garantikrav:

Om Svanenmärkta produkter ska omfattas av en 20-årig garanti behöver Svanen precisera vilka kriterier som ska uppfyllas av köparen för att garantin ska gälla.

Nordic Ecolabelling's comments

Nordic Ecolabelling acknowledge that having separate guarantees for B2C and B2B is problematic. Based on the inputs given in the consultation it is decided to set a 10-year warranty against rot damage in the wooden parts of the window and window door.

O15 Annual reporting

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Inga problem och nivåer justeras.

Nordic Ecolabelling's comments

No answer needed.

O16 Information and training of personnel

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Ok

Nordic Ecolabelling's comments

No answer needed.

O17 Planned changes and non-conformities

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Ok

Nordic Ecolabelling's comments

No answer needed.

O18 Customer complaints

Miljøstyrelsen Danmark

Ingen bemærkninger.

Mockfjärds

Ok

Nordic Ecolabelling's comments

No answer needed.

4.3.6 Environmental impact of Window replacement

Miljøstyrelsen Danmark

Afsnittet mangler at inddrage en sammenligning af vinduesudskiftning med udskiftning af rude eller påsætning af forsatsrude og/eller reparation/recovering af vinduesrammen. Ellers er det ikke muligt, fuldt ud, at konkludere at vinduesudskiftning er den miljømæssigt bedste løsning.

Nordic Ecolabelling's comments

Nordic Ecolabelling acknowledges that renovating and upgrading older windows in some cases can be more resource-saving than replacing and installing new ones. This can for instance be the case in older buildings or buildings worthy of preservation. However, a very large share of the windows currently replaced are from the 60's and 70's. These often do not have the quality to be repaired and in addition there is a relatively high risk that they contain hazardous substances. For these types of windows, the potential for renovating and energy upgrading is low.

Furthermore, the installation companies that conduct numerous window replacement and have this as their core business are typically not performing renovation / upgrading of the existing windows. This is also the companies where it is reasonable to have a very organized setup for handling the window glass due to the amounts generated. A carpenter conducting a window replacement now and then will typically not be a potential license holder. Nordic Ecolabelling sees that the decision to replace or renovate is out of our steerability as the companies that we expect to have as licensees are not performing both services. Therefore, we do not find it relevant to further compare these services as the customer's choice is out of our steerability.

A new Section describing the MECO (material, energy, chemicals and other impacts) analysis of the product group has been added to the criteria.

4.3.7 Future criteria generation

Miljøstyrelsen Danmark

Nordisk Miljømærkning opfordres til at udvide produktgruppen med udskiftning af rude på/eller påsætning af forsatsrude og/eller reparation/recovering af vinduesrammen, se bemærkning til afsnit 4-5.

Nordic Ecolabelling's comments

In general, please see answer in the previous section. However, we will reconsider the scope of the criteria in next generation of the criteria.

4.3.8 Appendices

Nordic Ecolabelling's comments
No comments.

5 Comments to the background, in detail

No comments.