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15. Dezember 2016

Stakeholder Consultation on Exemption Review under Directive 2011/65/EU, B-2016

Dear Mrs. Dollhofer

Please find attached our position regarding the exemption review under Directive 2011/65/EU

1. Scope / wording and relevant category of the exemption request

The applicant has requested an exemption for "Cadmium and Lead used for windows and doors, being manufactured out of plastic window profiles containing recovered PVC, in case these windows and doors may be equipped or retrofitted with electric and/or electronic devices"

1.1. Do you agree with the scope of the exemption as proposed by the applicant?

We agree with the scope of the exemption as proposed by the applicant

1.2. Please suggest an alternative wording and explain your proposal, if you do not agree with the proposed exemption wording.

As we agree question not relevant

2. Environmental / health protection / consumer safety considerations

2.1. Do you have any comments with respect to the applicant's assessment of environmental, health and consumer safety issues?

No additional comments

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Sitz der Gesellschaft: Sendenhorst · HRB 8282 AG Münster · Vorsitzender des Aufsichtsrates: Ulrich Weimer

Vorstand: Andreas Hartleif (Vorsitzender), Dr. Andreas W. Hillebrand (stellvertr. Vorsitzender), Bonifatius Eichwald, Eike Hartleif, Dr. Werner Schuler



Seite 2

- 2.2. Do you know about possible health effects of Cd/Pb contained in recycled PVC, which are no longer permitted in virgin PVC to protect the health of different actors?
No health effects are known by using recycled PVC
- 2.3. Do you have any comments regarding the environmental and health requirements as per the REACH Regulation?
The Cadmium derogation is a similar case in our opinion.
- 2.4. Do you have any comments regarding the applicant's assessment of impacts and benefits?
As we agree totally with the applicant's assessment no further comment
- 2.5. Would you be able estimating the amount of Cd and Pb in recycled PVC-U profiles of electronic doors and windows which is placed on the market in the EU every year? Please indicate figures if yes.

The content of closed loop recycled PVC used in a specific new PVC profile is typically less than 50%. Taking into account the fraction of Cd/PB stabilizer used in the former PVC profile indicates that a new profile contains typically less than 1% Cd/Pb or lower. We estimate the maximum that can be found in a single case less than 2%. Hence the fraction of Ca/Zn stabilized profiles in closed loop recycling will increase in future the fraction of Cd/PB will decrease considerably.

- 2.6. Do you support the applicant's conclusion that:
 "The use of recycled PVC has a strong positive environmental impact by closing the loop towards a circular economy, by reducing the use of raw materials and by reducing the primary energy demand in the extrusion process and thus aims to achieve low carbon manufacturing".

Please argue why or why not.

We support the applicant's conclusion totally. The use of one ton of recycled PVC saves approximately 2 tons of CO2 which are avoided in the production of one ton of new PVC material. The potential of PVC recycling is estimated to be 700.000 tons in the EU in 2020 according to Recovinyl. Estimating that only 10% will be used in closed loop recycling in new PVC window frames there is a potential to save 140.000 tons of CO2 emission in 2020 every year.



2.7. Is it possible to quantify any environmental impact?

The environmental impact of reuse of recycled PVC material for use in one new PVC window (1,23 m x 1,48 m) is described in the Environmental Product Declaration EPD (Declaration number EPD-QKE-20150313-IBG1-EN, ECO EPD Ref. No. ECO-0000038)

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)																	
PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE								END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
X	X	X	X	X	X	MND	MND	X	MND	MND	MND	X	X	X	X	X	
RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: window (1,23 x 1,48 m) with insulated double glazing																	
Parameter	Unit	A1-A3	A4	A5	B1	B4	C1	C2	C3	C4	D						
GWP	[kg CO ₂ -Eq.]	1.16E+2	8.18E-1	1.96E+0	7.18E+2	6.87E+1	0.00E+0	2.56E+0	8.08E-1	7.32E+0	-3.48E+1						
ODP	[kg CFC11-Eq.]	7.30E-6	1.34E-7	2.49E-8	1.06E-4	6.54E-6	0.00E+0	4.22E-7	1.07E-7	1.56E-7	-1.05E-6						
AP	[kg SO ₂ -Eq.]	5.67E-1	3.21E-3	7.84E-3	9.95E-1	4.46E-1	0.00E+0	1.01E-2	5.79E-3	8.93E-3	-1.18E-1						
EP	[kg (PO ₄) ³ -Eq.]	6.46E-2	6.55E-4	1.59E-3	1.14E-1	4.93E-2	0.00E+0	2.07E-3	1.25E-3	2.40E-3	-1.41E-2						
POCP	[kg ethene-Eq.]	3.14E-2	1.06E-4	4.44E-4	7.83E-2	1.95E-2	0.00E+0	3.38E-4	1.59E-4	6.15E-4	-1.32E-2						
ADPE	[kg Sb-Eq.]	1.14E-3	2.48E-6	1.28E-5	1.49E-4	1.06E-3	0.00E+0	7.86E-6	6.12E-7	2.16E-5	-1.19E-4						
ADPF	[MJ]	1.85E+3	1.31E+1	3.27E+1	1.13E+4	9.42E+2	0.00E+0	4.13E+1	1.20E+1	2.26E+1	-6.09E+2						
Caption: GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources																	

3. Socio - economic impacts of substitution

Please provide comments regarding the socio-economic impact of substitution as applicable.

Do you support the following statement of the applicant regarding socio-economic benefits of recycled PVC: "The reuse of PVC waste, however, has a proven socio-economic benefit in particular with regard to decarbonisation, circular economy, competitiveness and raw material availability. For instance, the today's ratio of around 16% recovered PVC used in PVC profiles reduce primary energy demand by approximately 8% (source: "Environmental Product Declaration for double - glazed PVC Windows, § 6.3 Sensivity concerning the use of recycled PVC (source: <https://epd-online.com/PublishedEpd/Detail/9185>)."



Seite 4

3.1. Can you support this statement with further relevant data?

See answers 2.6 and 2.7

If you don't agree to this statement, could you provide relevant data?

Please feel invited to provide data regarding the total negative environmental, health and consumer safety impacts caused by substitution, as well as data regarding the total environmental, health and consumer safety benefits of exemption.

4. Any comments on potential adverse impacts on innovation in case of granting the exemption?

We do not see any adverse impact by granting the exemption.

Sincerely yours

VEKA AG

i. V.


Dr.-Ing. Michael Szerman
Leiter Anwendungstechnik