ENVIRONMENTAL PRODUCT DECLARATION
According ISO 14025 and EN 15804

kvadrat shade

APO

COMPANY INFORMATION / DECLARATION OWNER

Manufacturer:	Kvadrat Shade
Production Location:	Verosol Fabrics bv
Address:	Kiefte 17
	7151HZ Eibergen
E-mail:	contact@kvadratshade.com
Website:	www.kvadratshade.com

EPD INFORMATION

Calculation number:	EPD-NIBE-20201222-15660
Date of issue:	30-12-2020
End of validity:	30-12-2025
Version NIBE's EPD Application:	v2.0
Version database:	v2.95 (2020-12-03)
PCR:	EN15804:2012+A1

VERIFICATION OF THE DECLARATION

CEN standard EN 15804:2012 serves as the core PCR
Independent verification of the declaration. according to EN ISO
14025:2010. ☐ Internal ☑ External

Verklaring van de toetser, MSc P.F. Stadhouders, 30-12-2020:

"De methodologie en dataverzameling zoals beschreven in dit rapport
voldoet aan de eisen van de "Bepalingsmethode Milieuprestatie
Gebouwen en GWW-werken" versie 3.0 van november 2019 en de
onderliggende normen ISO 14040, ISO 14044 en NEN-EN 15804."

Third party verifier: Msc. P.F. Stadhouders, EcoReview V.O.F.

DECLARED UNIT
m2 fabric

m2 of canvass for roller blinds applied to the inside of a window. The
fabric has a life time of 15 years. In compliance with the Horizontal PCR
INSIDE/INSIDE, A4 is considered 1km.

SCOPE OF DECLARATION

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	MND	MND	MND	MND	X	X	X	X	X

(X = included, MND = module not declared)

PRODUCT DESCRIPTION

The Apo shade is a roller blind textile. The aim of the textile is to enhance
light, acoustic or thermal comfort. The product is made out of polyester
that has been treated with several finishes.

The Apo blind has a woven look and an aluminium coating. Slightly
transparant, it provides a high degree of control over glare.

The blind has a lightfastness of 4-5 and a glare control rating of 3. It has
4% visual light transmission, 64% solar reflection, 6% solar transmission,
31% solar absorption, 2% openness factor, 18% GTOT/SHGC, 3% visual
light transmission, and a U-value of 0.83.

The system has a width of 240 cm, thickness of 0,35 mm, weighs 217
g/m2, and has a estimated reference service life of 15 years.

DESCRIPTION OF THE MANUFACTURING PROCESS

Blank canvasses made of 100% polyester are purchased ready for
production. The canvasses are treated with dyes and finishings.

The first step of the process is the washing of the blank canvasses. The
canvas passes through the bath on rollers, continuously moving through
the bath.

The canvas is then dried and stabilized on a stenter.

The canvas is then metalized with an aluminium coating.

Flame retardant finishes are applied to the canvass.

The canvass is passed through a calander to apply the colour over
transferprinting.

The textile is cut in the right size.

The emissions that occur during the production process are related to the
burning of gas.

After the canvasses are treated they are packaged and transported to the
location where the system will be assembled.

Verosol fabrics uses 100% sustainable electricity produced by
windturbines in Europe.

RESULTS

Impact category	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
ADPE	Kg Sb	2.88E-6	2.90E-8	8.06E-7	1.08E-10	1.99E-7	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.13E-8	1.25E-7	2.94E-10	-2.78E-8	4.02E-6
ADPF	MJ	1.97E+1	1.58E-1	1.20E+1	5.92E-4	1.67E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.21E-2	4.17E-1	5.75E-3	-5.35E+0	2.87E+1
AP	Kg SO2 Equiv.	3.65E-3	4.41E-5	1.05E-3	1.65E-7	2.70E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.73E-5	1.72E-4	1.55E-6	-2.37E-4	4.98E-3
ODP	Kg CFC-11 Equiv.	4.70E-8	1.90E-9	7.76E-8	7.10E-12	7.73E-9	0.00E+0	0.00E+0	0.00E+0	0.00E+0	7.44E-10	1.46E-8	6.05E-11	-2.98E-8	1.20E-7
GWP	Kg CO2 Equiv.	9.09E-1	1.02E-2	7.03E-1	3.80E-5	1.15E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.98E-3	4.95E-1	2.67E-3	-2.74E-1	1.97E+0
EP	Kg PO43- Equiv.	5.67E-4	8.89E-6	2.57E-4	3.32E-8	4.89E-5	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.48E-6	3.08E-5	6.09E-7	-2.98E-5	8.87E-4
POCP	Kg Ethene Equiv.	1.10E-3	6.03E-6	2.09E-4	2.26E-8	7.05E-5	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.36E-6	1.67E-5	6.14E-7	-5.76E-5	1.34E-3

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
PERE	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERM	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ	7.04E-1	1.66E-3	2.26E+0	6.22E-6	1.51E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.52E-4	3.53E-2	9.50E-5	-4.97E-2	3.10E+0
PENRE	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PENRM	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PENRT	MJ	2.01E+1	1.69E-1	1.22E+1	6.32E-4	1.70E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.62E-2	4.05E-1	6.10E-3	-5.40E+0	2.93E+1
SM	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	M3	9.56E-3	2.70E-5	1.49E-3	1.01E-7	6.34E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.06E-5	6.84E-4	5.73E-6	-3.47E-4	1.21E-2
HWD	Kg	1.10E-3	1.01E-7	9.18E-5	3.78E-10	5.96E-5	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.96E-8	9.40E-7	4.47E-9	-5.62E-6	1.24E-3
NHWD	Kg	8.48E-2	9.67E-3	2.94E-2	3.62E-5	1.75E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.79E-3	8.82E-3	2.11E-2	-2.20E-3	1.73E-1
RWD	Kg	2.80E-5	1.07E-6	1.31E-5	4.00E-9	2.41E-6	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.19E-7	1.40E-6	3.46E-8	-2.17E-6	4.43E-5
CRU	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MFR	Kg	0.00E+0	0.00E+0	7.36E-4	0.00E+0	4.44E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.05E-2	0.00E+0	0.00E+0	1.57E-2
MER	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EE	MJ	0.00E+0	0.00E+0	1.99E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.04E+0	3.24E+0
EET	MJ	0.00E+0	0.00E+0	1.26E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.92E+0	2.05E+0
EEE	MJ	0.00E+0	0.00E+0	7.32E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.12E+0	1.19E+0
SP	**s€**	**s€ 0,07**	**s€ 0,00**	**s€ 0,04**	**s€ 0,00**	**s€ 0,01**	**s€ 0,00**	**s€ 0,00**	**s€ 0,00**	**s€ 0,00**	**s€ 0,00**	**s€ 0,03**	**s€ 0,00**	**s€ -0,02**	**s€ 0,13**

Impact categories: ADPE=Depletion of abiotic resources-elements | **ADPF**=abiotic depletion of fossil resources | **AP**=Acidification of soil and water | **ODP**=Ozone layer depletion | **GWP**=Global warming | **EP**=Eutrophication | **POCP**=Photochemical oxidants creation

Parameters: PERE=renewable primary energy ex. raw materials | **PERM**=renewable primary energy used as raw materials | **PERT**=renewable primary energy total | **PENRE**=non-renewable primary energy ex. raw materials | **PENRM**=non-renewable primary energy used as raw materials | **PENRT**=non-renewable primary energy total | **SM**=use of secondary material | **RSF**=use of renewable secondary fuels | **NRSF**=use of non-renewable secondary fuels | **FW**=use of net fresh water | **HWD**=hazardous waste disposed | **NHWD**=non hazardous waste disposed | **RWD**=radioactive waste disposed | **CRU**=Components for re-use | **MFR**=Materials for recycling | **MER**=Materials for energy recovery | **EE**=Exported energy | **EET**=Exported Energy Thermic | **EEE**=Exported Energy Electric

ADDITIONAL INFORMATION

Allocation

There is no allocation applied for the environmental profiles / datasets used in this LCA.