

MÅLBAR



**Brancheværktøj til
PLAST INDUSTRIEN**

Målbar LCA-værktøj

Faste forudsætninger

Vi bruger EU's nyudviklede LCA-metode PEF

Alle produkter anvendes og bortskaffes som gennemsnit i EU

Hvis ikke man kender data anvender vi vores conservative estimeringer

Vi regner med en fast levetid på 15år på alle produkter

Base data Plastic Ball View guide video Last Modified Date: 25/05/2025 09:51 UPDATE Legal/Market/Export Info: 25/05/2025 16:55

Main product group: Lighting and electrical appliances

Brand: Gledex Light

Product name: Plastic Ball

Product category: Indoor Lighting | Sub-category: Floor lamp

Product size: Low level outdoor with 1000 lux

Specific Supplier: [Link]

Total weight incl. Product: 4,81

Screed by: 2,92 EC Difference from total weight

Components and sub-suppliers Show required fields YES NO NEW

Materials and production Show required fields YES NO NEW

Solid Wood Show required fields YES NO NEW

Type	Legal	Component production	Origin of saw mill	Sustainable share (%)	Production made EC	Designed for Recyclability
SolidWood1						
SolidWood2						
SolidWood3						
SolidWood4						
SolidWood5						
SolidWood6						
SolidWood7						
SolidWood8						
SolidWood9						
SolidWood10						

Wood board board Show required fields YES NO NEW

Type	Legal	Component production	Board/Process/Type & Length	Sustainable share (%)	Production made EC	Designed for Recyclability
WoodBoardBoard1						
WoodBoardBoard2						
WoodBoardBoard3						
WoodBoardBoard4						
WoodBoardBoard5						
WoodBoardBoard6						
WoodBoardBoard7						
WoodBoardBoard8						
WoodBoardBoard9						
WoodBoardBoard10						
WoodBoardBoard11						
WoodBoardBoard12						
WoodBoardBoard13						
WoodBoardBoard14						
WoodBoardBoard15						

Metal Show required fields YES NO NEW

Type	Legal	Component production	Origin of metal mill	Example share (%)	Production made EC	Designed for Recyclability
Metal1				0,00		
Metal2				28,00	0,50	YES
Metal3				0,00	0,50	YES
Metal4				0,00		
Metal5				0,00		
Metal6				0,00		
Metal7				0,00		
Metal8				0,00		
Metal9				0,00		
Metal10				0,00		
Metal11				0,00		
Metal12				0,00		
Metal13				0,00		
Metal14				0,00		
Metal15				0,00		

Plastic part 1 Show required fields YES NO NEW

Material	Weight, kg	Component production	Production method	Component production location	Production made EC	Designed for Recyclability
Material1	0,50	GD - Germany	Injection molding	NO		
Material2	30,00	GD - Germany	Blow molding	NO		
Material3	2,00	GD - Germany	Blow molding	NO		

Polymer material Show required fields YES NO NEW

Material	Weight, kg	Component production	Production method	Component production location	Production made EC	Designed for Recyclability
Material1	30,00	GD - Germany	Blow molding	NO		
Material2	2,00	GD - Germany	Blow molding	NO		
Material3	2,00	GD - Germany	Blow molding	NO		
Material4	2,00	GD - Germany	Blow molding	NO		
Material5	2,00	GD - Germany	Blow molding	NO		

Click on the image below for help

Glass / Stone / Ceramic Show required fields YES NO NEW

Material	Legal	Component production	Origin of quarry/stone material	Production made EC	Designed for Recyclability
Glass, Ceramic1					
Glass, Ceramic2					
Glass, Ceramic3					
Glass, Ceramic4					
Glass, Ceramic5					
Glass, Ceramic6					
Glass, Ceramic7					
Glass, Ceramic8					
Glass, Ceramic9					
Glass, Ceramic10					

Click on the image below for help

Surface finish & chemicals Show required fields YES NO NEW

Material	Legal	Component production	Surface application	Surface finish mill	Production made EC	Designed for Recyclability
Surface finish, Chemical1						
Surface finish, Chemical2						
Surface finish, Chemical3						
Surface finish, Chemical4						
Surface finish, Chemical5						
Surface finish, Chemical6						
Surface finish, Chemical7						
Surface finish, Chemical8						
Surface finish, Chemical9						
Surface finish, Chemical10						
Surface finish, Chemical11						
Surface finish, Chemical12						
Surface finish, Chemical13						
Surface finish, Chemical14						
Surface finish, Chemical15						

Click on the image below for help

Upholstery Show required fields YES NO NEW

Material	Legal	Upholstery goods	Origin of upholstery material	Production made EC	Designed for Recyclability
Upholstery1					
Upholstery2					
Upholstery3					
Upholstery4					
Upholstery5					
Upholstery6					
Upholstery7					
Upholstery8					
Upholstery9					
Upholstery10					

Click on the image below for help

Textile 1 Show required fields YES NO NEW

Material	Area of usage, m ²	Weight, kg/m ²	Place of origin	Place of weaving	Textile treatment	Place of spinning	Production made EC	Remarks
Material composition 1								
Material composition 2								
Material composition 3								
Material composition 4								
Material composition 5								
Material composition 6								
Material composition 7								
Material composition 8								
Material composition 9								
Material composition 10								

Click on the image below for help

Packaging Show required fields YES NO NEW

Master box volume Show required fields YES NO NEW

Length, m	Depth, m	Height, m	Volume, m ³	Production made EC	Designed for Recyclability
0,70	0,50	0,40	0,14		

Packaging Show required fields YES NO NEW

Material	Weight, kg	Component production	Production method	Component production location	Production made EC	Designed for Recyclability
Material1	1,50	GD - Germany	Injection molding	NO		
Material2	1,50	GD - Germany	Injection molding	NO		
Material3	1,50	GD - Germany	Injection molding	NO		
Material4	1,50	GD - Germany	Injection molding	NO		
Material5	1,50	GD - Germany	Injection molding	NO		
Material6	1,50	GD - Germany	Injection molding	NO		
Material7	1,50	GD - Germany	Injection molding	NO		
Material8	1,50	GD - Germany	Injection molding	NO		
Material9	1,50	GD - Germany	Injection molding	NO		
Material10	1,50	GD - Germany	Injection molding	NO		
Material11	1,50	GD - Germany	Injection molding	NO		
Material12	1,50	GD - Germany	Injection molding	NO		
Material13	1,50	GD - Germany	Injection molding	NO		
Material14	1,50	GD - Germany	Injection molding	NO		
Material15	1,50	GD - Germany	Injection molding	NO		

Click on the image below for help

Transport & Logistics Show required fields YES NO NEW

Først kom møbelbranchen, og det breder sig...



Virksomhederne bruger det til:

Klimaforbedringer

Hvor er de lavthængende frugter som kan sænke vores emissionerne af vore produkter?

Grønne regnskaber

Især store virksomheder efterspørger klimatal på produkter til deres grønne regnskaber.



EU er ved at standardisere LCA-beregning

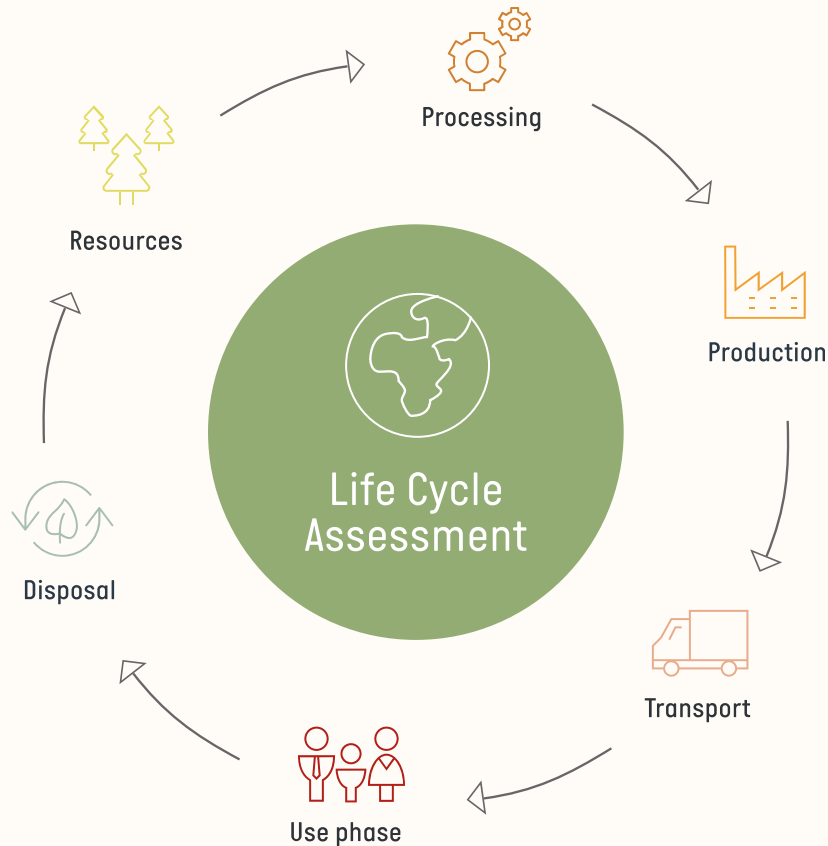
Product
Environmental
Footprint



The ability to
compare

One rule(r) to rule them all

EU's LCA-metode: PEF Product Environmental Footprint



- Emission allocation rules
- Higher quality of data

“The EU recommended Life Cycle Assessment (LCA) based methods to quantify the environmental impacts of products (goods or services) and organisations.”¹

- LCA's according to EN ISO 14040:2006, 14044:2006 (Life Cycle Assessment/Screening)
- EN ISO 14067:2018 (Carbon Footprint of products)*
- Data in conformity with PEF and OEF: EcoInvent or Sphera databases (EF-data).
- LCA studies in conformity with PEF and OEF
- Build upon category rules: PEFCR and OEFCR

For plast adskiller PEF beregning sig ved

Elektricitetsmix i beregningen

Man anvender et elmix hvor de solgte grønne certifikater er trukket ud –
“residual grid mix”

Hvis man har købt elektricitet med grønt certifikat (guarantee of origin), så
anerkendes det ved et lavt elmix

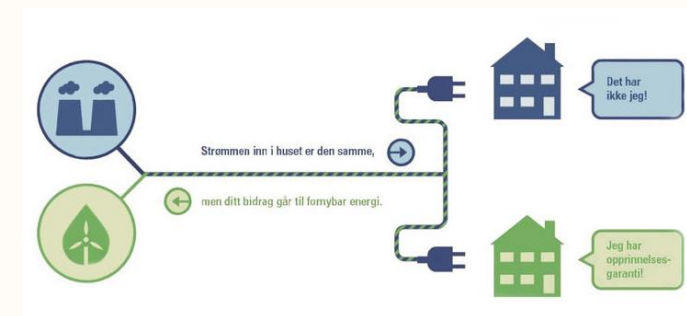


Illustration: Energi Norge

Genanvendelse af materialer

Man får kun ca den halve fordel af at anvende genanvendte materialer medmindre at man også sikrer at materialet bliver genanvendt når produktets liv er slut (Circular Footprint Formular).



Bioplast

Man må ikke fratække den CO₂, som planter og træer optager.

Til gengæld bliver den ikke regnet med hvis den udledes ved produktets bortskaffelse.

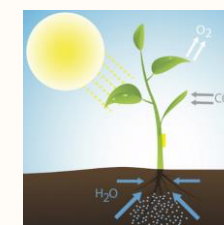


Illustration: Cliouniverset

Our plastic production processes

THERMOPLASTIC PRODUCTION

Compounding thermoplastics
Injection molding
Injection molding hydraulic machine
Injection molding electric machine
Injection molding hybrid machine
Extrusion plastic sheet
Extrusion plastic profile
Extrusion plastic film
Extrusion plastic fiber
Extrusion and blow molding
Injection blow molding
Compression molding
Rotational molding with natural gas heat
Rotational molding with electrical heat
Thermoforming
Extrusion + thermoforming continuous line
Thermoforming continuous line
Foaming polystyrene parts
Foaming parts

THERMOSETTING PRODUCTION

Compounding thermosets (BMC)
Injection molding thermoset (BMC)
Foam injection molding thermoset
Compression moulding SMC/BMC
Pultrusion thermosetting
Filament winding thermosetting
Spray-up molding thermosetting
Casting thermosetting by ambient temperature
Resin infusion molding thermosetting
Resin transfer molding thermosetting
Autoclave molding thermosetting

Our fossil based polymers

FOSSIL THERMOPLASTICS

Polypropylene (PP)
Polyethylene (PE-HD)
Polyethylene (PE-LD)
Polystyrene (PS)
Polystyrene High Impact (HI-PS)
ABS/ASA
Polyester (PETa)
SAN
Acrylic (PMMA)
Polyamide (PA6)
Polyamide (PA66)
Acetal (POM)
Vinyl (PVC)
Polycarbonate PC
Polytetrafluoro ethylene (PTFE)
Polyvinylidene fluoride (PVDF)

THERMOPLASTIC ELASTOMERS

Styrene Butadiene Rubber (SBR)
Polyurethane thermoplastic (PUR TPE)
Ethylene vinyl acetate (EVA)

RECYCLED THERMOPLASTICS

Post consumer recycled
Post industrial recycled

FOSSIL THERMOSETTING PLASTICS

Melamine resin
Melamine BMC (Melamine)
Ureaformaldehyde resin
Ureaformaldehyde BMC
Polyester resin
Polyester BMC
Epoxy resin
Phenolic resin
Phenolic BMC (Bakelite)
Vinyl ester resin
Acrylic (PMMA) resin
Polyurethane rigid foam
Polyurethane polyol resin
Polyurethane TDI resin
Polyurethane MDI resin

FOSSIL THERMOSETTING RUBBERS

PU rubber
EPDM rubber BMC
Acrylonitrile Butadiene Rubber (NBR) BMC
Silicone rubber resin
Silicone rubber BMC
Latex synthetic resin
Latex synthetic BMC

Our bio based polymers

BIO THERMOPLASTICS

Polyethylene biobased (bioPE-HD)
Polyethylene biobased (bioPE) corn based
Polyethylene biobased (bioPE) wheat based
Polyethylene biobased (bioPE) tall oil based
Polyethylene biobased (bioPE) sugar beat based
Cellulose acetate partly biobased (CA)

BIODEGRADABLE BIO THERMOPLASTICS

Poly lactide acid biobased (bioPLA)
Starch biobased TPS

BIO THERMOSETTING RUBBERS

Polyurethane polyol bio-based resin
Latex biobased resin
Latex biobased BMC (Natural rubber)

Fillers and fibers

NON BIOBASED FIBERS

Glass fibers short
Carbon fibers short
Glass fiber yarn
Carbon fiber yarn

BIOBASED FIBERS AND FILLERS

Wood fibers
Wood fibers sustainable
Wood chips
Wood chips sustainable
Cork particles sustainable
Flax/linen fibers
Cotton fibers
Cotton fibers organic
Grass fibers
Jute fibers
Hemp fibers
Kenaf fibers
Paper (Cellulose) fibers
Paper (Cellulose) fibers sustainable
Recyc. paper fibers
Wheat straw
Barley straw
Silk fibers short

NON BIOBASED FILLERS

Chalk
Talcum
Stone meal
Stone crushed (gravel/agregates)
Marble stone crushed color sorted
Glass crushed color sorted
Aluminium hydroxide
Iron oxide black
Carbon black
Titanium dioxide

UV inhibitors

UV inhibitor

Polymers soon to be implemented

BIO THERMOPLASTICS

Polypropylene (bioPP) used cooking oil based
Polypropylene (bioPP) castor oil based
Polypropylene (bioPP) corn based
Polypropylene (bioPP) sugar beet based
Polypropylene (bioPP) wheat based
Polyester (30% bioPETa) grass based
Polyester (30% bioPETa) corn based
Polyester (30% bioPETa) sugar beet based
Polyester (30% bioPETa) wheat based
Poly Vinyl Chloride (bioPVC) sugar beet based
Polycarbonate (bioPC) corn based
Polyamide 6 (bioPA6) corn based
Polyamide 6 (bioPA6) wheat based
Polyamide 6 (bioPA6) sugar beat based
Polyamide 6 (bioPA6) grass based
Polyamide 11 (PA11) castor oil based
Polyamide 4.10 (bioPA 4.10)
Polytrimethylene terephthalate (37% bioPTT)
Polybutyl acrylate (bioPBA)

BIODEGRADABLE BIO THERMOPLASTICS

Polybutylene succinate (bioPBS)
Polyhydroxybutyrate (PHB)

BIO THERMOSETTING RUBBERS

Polyurethane polyol bio-based resin
Latex biobased resin
Latex biobased BMC (Natural rubber)
EPDM rubber (70% biobased)

Nyt dedikeret Målbar plastværktøj

+ -

Base data Plastkomponent
User guide - video
Last Modified date: 22/09/2023 17.49
UPDATE
Input/Output Export date 23/01/2023 14.56

Add Alternate

Hide

v. 2.9700

Main product group: COMPONENT		
Brand: Plast A/S		
Component name: Plastkomponent		
Product category: COMPONENT		
Sub-category: COMPONENT		
Product size:		
Specific Supplier:		Unit cost price:
Total weight incl. 2,70		
-0,20 KG difference from total weight		
Product packaging, KG		
Screened by:		

Show required fields +

YES NO

INSERT PHOTO
HERE

+ -

Components and sub-suppliers Show required fields
 YES NO

NEW

+ -

Materials and production

NEW

Click on the image below for help

Plastkomponent Show required fields YES NO

Total kg plastic in the part Kg

Material	% share	
Material 1	ABS/ASA	50,00%
Material 2	Post consumer recycled	50,00%

Additives/Reinforcement

Material	% share
Material 1	
Material 2	
Material 3	
Material 4	
Material 5	

Component production

Production method

Replacing material

Origin of plastic chemical factory

Origin of reinforcement/stiffening

Production waste KG

Designed for disassembly

Virksomhedsspecifikke data løftes ind i beregningerne

Base data						
Company name:	Plast A/S					
Street address and number:	Granulatvej 10					
City:	Fjellstrup					
Zip code:	8745					
Country:	DK - Denmark					
Time period:	FROM			TO		
	Date	Month	Year	Date	Month	Year
	1		1	2022	31	12
Electricity						
Total consumption during time period:	6.895.600 kWh					
Green certificates/own electricity production in	Type	Input	Unit			
			kWh			
			kWh			
			kWh			
			kWh			
			kWh			
			kWh			
			kWh			
			kWh			
			kWh			
Heating						
District heating	Input	Unit	Please specify CO2eq impact pr unit here			
	123.000	MWh	NOTE: only JEF compliant calculations can be used			
Own produced solar heating		kWh				
Other		kWh				
Fuels						
	Input	Unit				
Light fuel oil		Liter				
Diesel		Liter				
Gasoline		Liter				
Natural gas		M3				
LPG (Liquified Petroleum Gas)		M3				
Bio gas		M3				
Hard coal		Ton				
Brown coal (lignite)		Ton				
Wood chips purchased		Ton				
Wood pellets purchased		Ton				
Wood chips from own waste		Ton				
Wood pellets from own waste		Ton				
Other fuel		Ton				
Production processes IN-HOUSE						
THERMOPLASTIC			in-house process:			
Compounding thermoplastics			NO			
Injection molding Electric			YES			
Injection molding Hydraulic			YES			
Injection molding Hybrid			YES			
Injection molding Average						
Extrusion plastic sheet						
Extrusion plastic profile						
Extrusion plastic film (by blowing)						
Extrusion plastic fiber						
Extrusion and blow molding						
Injection blow molding						
Compression molding						
Rotational molding with natural gas heat						
Rotational molding with electrical heat						
Thermoforming						
Extrusion + thermoforming continuous line						
Thermoforming continuous line						
Foaming polystyrene parts						
Foaming parts						
THERMOSETTING						
Compounding thermosetting (BMC)						
Injection molding thermoset SMC/BMC						
Compression moulding SMC/BMC						
Pultrusion thermosetting						
Filament winding thermosetting						
Spray-up molding thermosetting						
Casting thermosetting by ambient temperature						
Resin infusion molding thermosetting						
Resin transfer molding thermosetting						
Autoclave molding thermosetting						
SURFACE TREATMENTS						
Wet painting			YES			
Powder coating						
Chrome plating						
Nickel plating						
Physical Vapor deposition (PVD)						
Screen printing						
Laser marking						
Tampo printing						
Other surface treatment						
Other surface treatment						
Other surface treatment						
			input total Material INPUT amount			
			74.973.757 Kg			
			input total Material INPUT amount			
			448.727.333 Kg			
			input total Material INPUT amount			
			6.739.925 Kg			
			input total Material INPUT amount			
			4.728 Kg			

SUBSCRIPTION MODEL



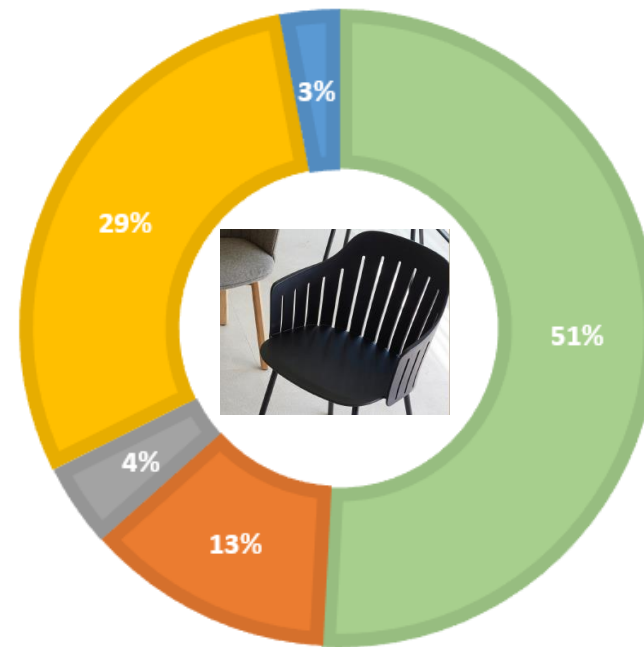
SIMPLE SCREENINGS

SINGLE PRODUCT/COMPONENT screenings

Sprøjttestøbning af Choice chair skaller



Illustration: TopStar



- Hydraulisk sprøjttestøbning + robot + bånd
- Formkøling
- Kompressorer
- Belysning, opvarmning, ventilation og aircon (estimeret)
- Andet forbrug (estimeret)

Målbar screening sammenlignet med Letbek data

Base data

Choice Chair Black compared with molding en

[User guide - video](#)

Last Modified date **27/09/2023 16.23** ● [UPDATE](#)

Input/Output Export date **23/01/2023 14.56**

Add Alternate

Hide

v. 2.9612

COMPONENT		
Letbek		
Choice Chair Black compared with molding energy measurement		
COMPONENT	Sub-category:	COMPONENT
Unit cost price:		
4,00		
0,04 KG difference from total weight		

Show required fields

YES NO

Choice Chair Black as a Målbar screening Choice Chair Black with Letbek injection molding

Choice Chair skal

Total kg plastic in the part

Polymer material

Material 1

Material 2

Additives/Reinforcement

Material 1

Material 2

Material 3

Material 4

Material 5

Show required fields

YES NO

	Kg
3,733	
Material	
Polypropylene (PP)	20,00%
Post industrial recycled	80,00%
Material	
	% share

Component production

PL - Poland

Replacing material

Polypropylene (PP)

Production method

Injection molding
hydraulic machine

Origin of plastic chemical factory

SE - Sweden
SE - Sweden

Origin of reinforcement/stiffening

Production waste KG

0,07

Designed for disassembly

YES

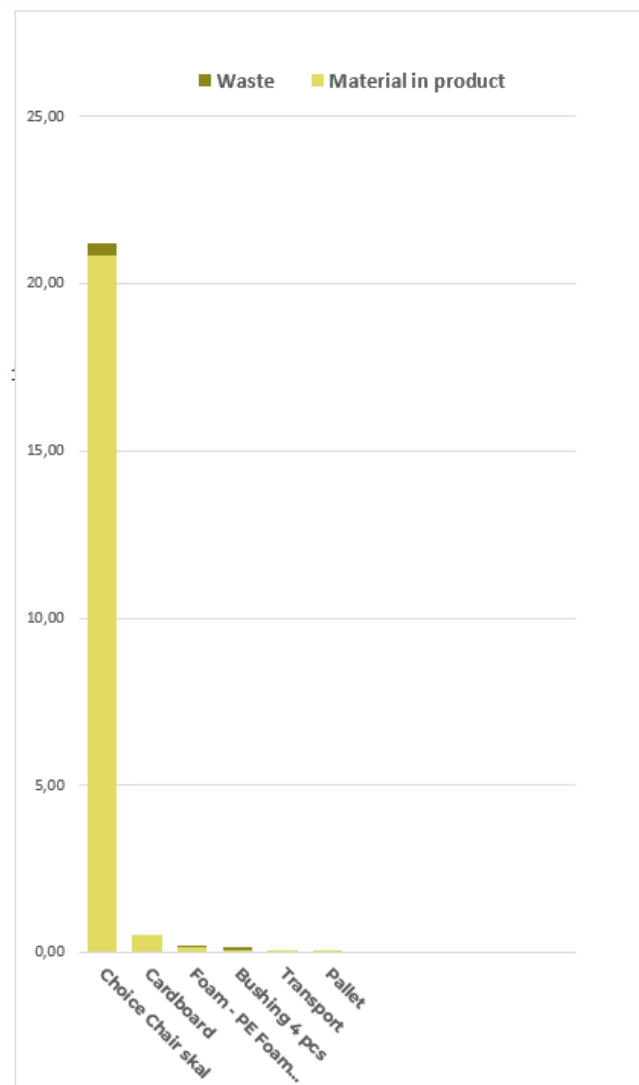
Resultatet af forskellige komponenter i Målbar screeningen

MÅLBAR

Main emission sources (pre element)

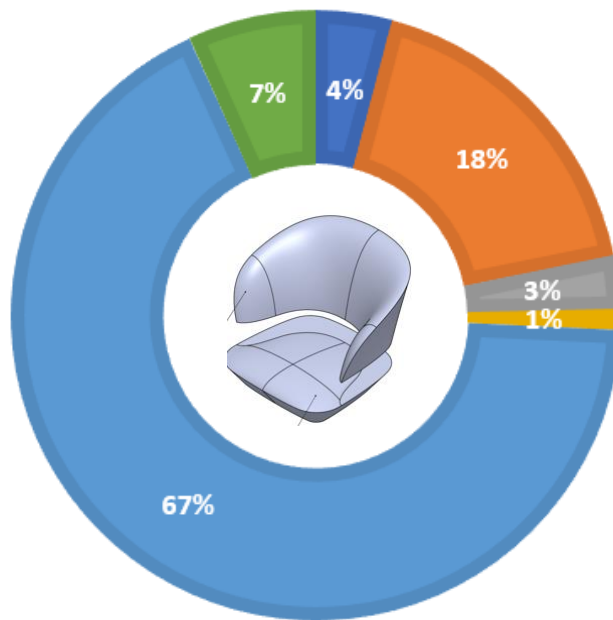
Element	Material	Total impact
Choice Chair skal	Polypropylene (PP), Post industrial recycled	21,21 kg CO ₂ -e
Cardboard	Corrugated cardboard inlay not sustainable fiber	0,55 kg CO ₂ -e
Foam - PE Foam estimated	Foamed polyethylene (PE-LD) sheets and tubes	0,24 kg CO ₂ -e
Bushing 4 pcs	Brass machined	0,19 kg CO ₂ -e
Transport	Total emission from transport - all steps	0,07 kg CO ₂ -e
Pallet	EUR wood pallet with 3 non-sustainable collars	0,07 kg CO ₂ -e

Total impact from Waste **0,55** kg CO₂-e



*) The values presented here, is total emission pr element (incl. Material, production, transport, Waste)

PU-skumstøbning af Oslo chair polstring




- Blanderdosering
- Varmt vand til værktøjsvarme
- Pumpe til værktøjsvarme
- Karrusel
- Belysning, opvarmning, ventilation og aircon (estimeret)
- Andet forbrug (estimeret)

Målbar screening sammenlignet med Letbek data

Add Alternate

Hide



v. 2.9612

Main product group:

Brand:

Component name

Product category:

Product size

Specific Supplier:


Total weight incl.


Product packaging, KG

Screened by:

COMPONENT		
Letbek		
Oslo Lounge Chair seat and back		
COMPONENT	Sub-category:	COMPONENT
Unit cost price:		
13,00		
3,00 KG difference from total weight		

Show required fields







Oslo Lounge Chair shell as a Målbar screening

Oslo Lounge Chair shells with Letbek molding

Click on the image below for help

Back 1

Total kg plastic in the part

Polymer material

Material 1

Material 2

Additives/Reinforcement

Material 1

Material 2

Material 3

Material 4

Material 5

YES NO

Show required fields

Total kg plastic in the part	
3,200	Kg
Material	% share
Polyurethane polyol resin	66,69%
Polyurethane TDI resin	33,31%
Material	% share

Component production

PL - Poland

Production method

Foam injection molding thermoset

Origin of plastic chemical factory

DE - Germany

DE - Germany

Origin of reinforcement/stiffening



Production waste KG

0,10

Designed for disassembly

NO

Click on the image below for help

Seat 1

Total kg plastic in the part

Polymer material

Material 1

Material 2

Additives/Reinforcement

Material 1

Material 2

YES NO

Show required fields

Total kg plastic in the part	
2,800	Kg
Material	% share
Polyurethane TDI resin	34,64%
Polyurethane polyol resin	65,36%
Material	% share

Component production

PL - Poland

Production method

Foam injection molding thermoset

Origin of plastic chemical factory

DE - Germany

DE - Germany

Origin of reinforcement/stiffening

Production waste KG

0,10

Designed for disassembly

NO

Resultatet af forskellige komponenter i Målbar screeningen

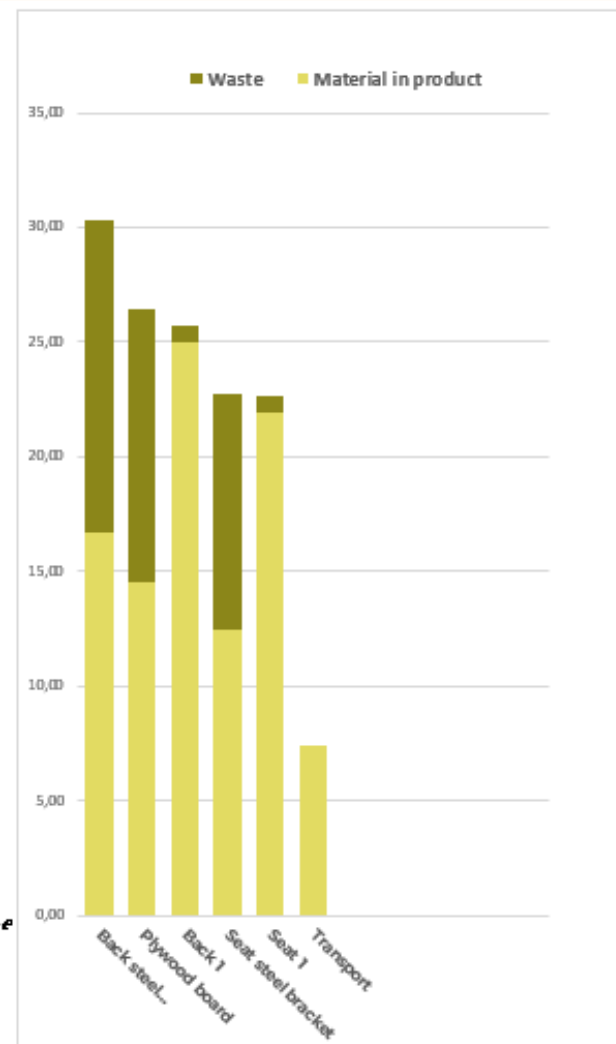
MÅLBAR

Main emission sources (per element)

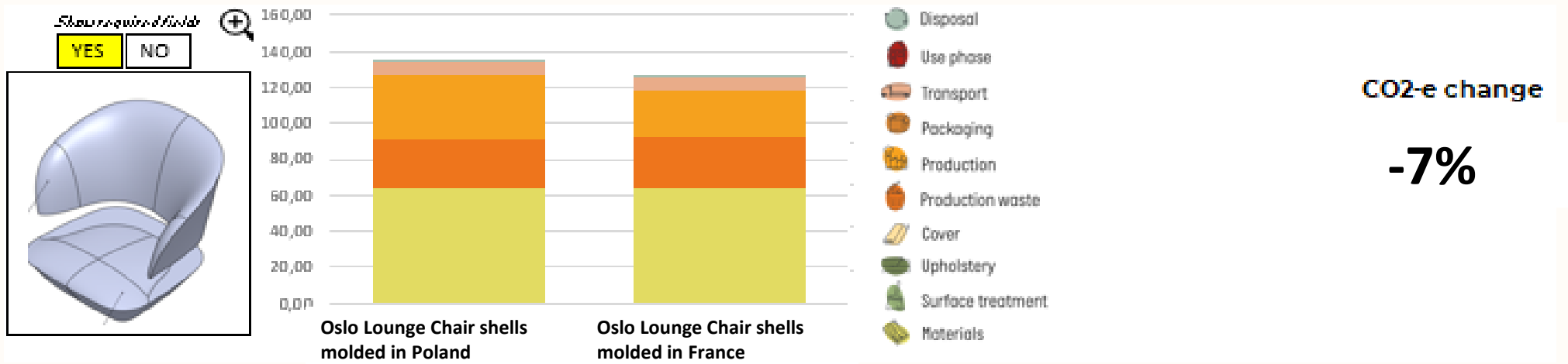
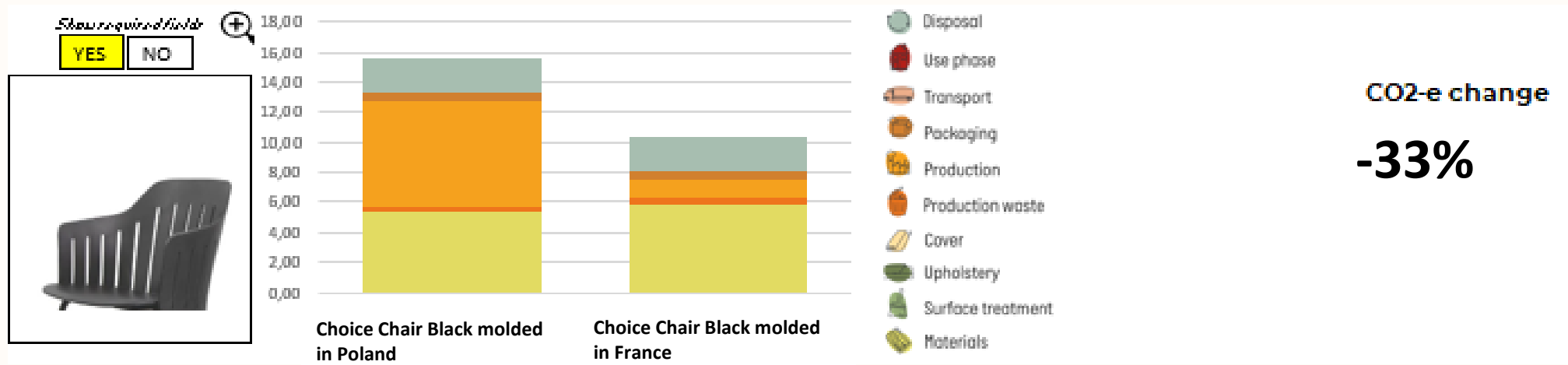
Element	Material	Total impact
Back steel bracket	Steel bracket/bent steel sheet	30,34 kg CO ₂ -e
Plywood board	Plywood board	26,45 kg CO ₂ -e
Back 1	Polyurethane polyol resin, Polyurethane TDI resin	25,73 kg CO ₂ -e
Seat steel bracket	Steel bracket/bent steel sheet	22,76 kg CO ₂ -e
Seat 1	Polyurethane TDI resin, Polyurethane polyol resin	22,69 kg CO ₂ -e
Transport	Total emission from transport - all steps	7,42 kg CO ₂ -e

Total impact from Waste **1,91** kg CO₂-e

*) The values presented here, is total emission per element (incl. Material, production, transport, Waste)



Effekten hvis Letbek skifter til grøn energi (Frankrig)



Appendix 2

Below is what PEF and OEF has a relation to;

- EN ISO 14040:2006
- EN ISO 14044:2006
- EN ISO 14067:2018
- ISO 14046:2014
- EN ISO 14021:2016
- EN ISO 14025:2010
- ISO 14050:2020
- CEN ISO/TS 14071:2016
- ISO 17024:2012
- EN ISO 14020:2001
- ISO 14064 (2006)
- ISO/WD TR 14069:2013
- CEN ISO/TS 14071:2016
- ISO/TS 14072:2014
- ISO 17024:2012
- BP X30-323-0:2015
- PAS 2050:2011
- FAO:2016
- Greenhouse Gas Protocol
- ENVIFOOD Protocol
- PEF Guide, Annex to Commission Recommendation 2013/179/EU
- OEF Guide, Annex to Commission Recommendation 2013/179/EU
- ILCD (International Reference Life Cycle Data System) Handbook
- Ecological Footprint Standards