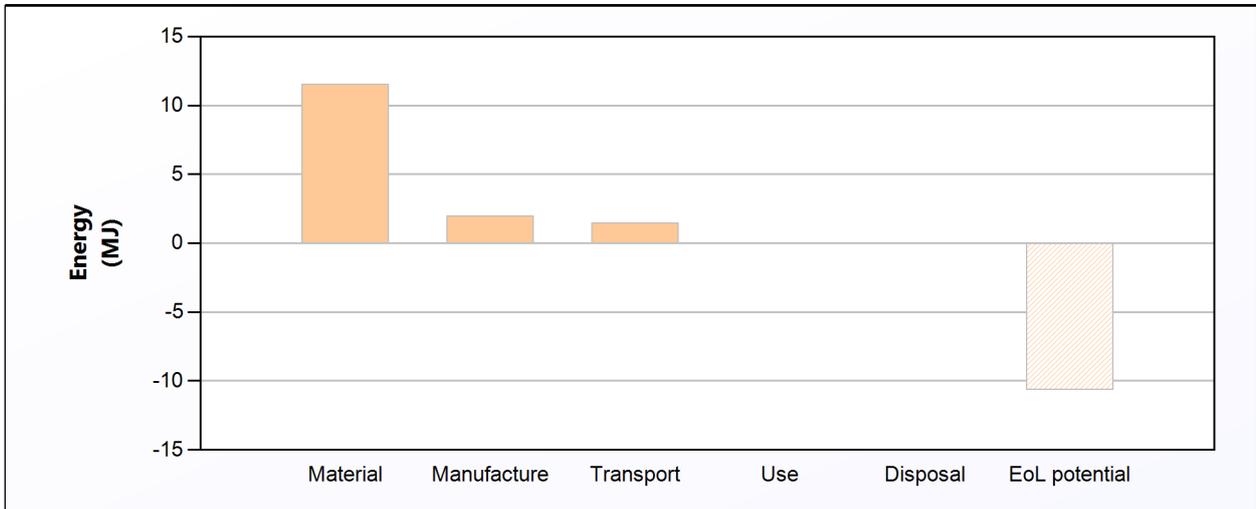


Energy Analysis

[Summary](#)


	Energy (MJ/year)
Equivalent annual environmental burden (averaged over 1 year product life):	15,2

Detailed breakdown of individual life phases

Material:

[Summary](#)

Component	Material	Recycled content* (%)	Part mass (kg)	Qty.	Total mass (kg)	Energy (MJ)	%
Zool rubber	Natural rubber (NR)	Virgin (0%)	0,065	1	0,065	5	43,4
Zool kurk	Cork (quercus suber)	Virgin (0%)	0,038	1	0,038	0,15	1,3
Upper fruitleer	Starch-based thermoplastics (TPS)	Virgin (0%)	0,16	1	0,16	5,9	51,0
Veters hennep	Hemp fiber	Virgin (0%)	0,05	1	0,05	0,5	4,3
Total				4	0,31	12	100

*Typical: Includes 'recycle fraction in current supply'

Manufacture:

[Summary](#)

Component	Process	Amount processed	Energy (MJ)	%
Zool rubber	Polymer molding	0,065 kg	1	51,8
Upper fruitleer	Polymer extrusion	0,16 kg	0,97	48,2
Total			2	100

Transport:[Summary](#)**Breakdown by transport stage**

Stage name	Transport type	Distance (km)	Energy (MJ)	%
Rubber (São Paulo > Santos haven)	32 tonne (4 axle) truck	1e+02	0,029	2,0
Rubber (Santos haven > Rotterdam)	Ocean freight	1e+04	0,56	37,5
Rubber (Rotterdam haven > fabriek Zutphen)	26 tonne (3 axle) truck	1,5e+02	0,052	3,4
Rubber (Zutphen > Groningen)	14 tonne (2 axle) truck	1,4e+02	0,066	4,4
Kurk (Santarém > Zutphen)	32 tonne (4 axle) truck	2,2e+03	0,65	43,5
Upper (Rotterdam haven naar Fruit leather Rotterdam)	14 tonne (2 axle) truck	3,2	0,0015	0,1
Upper (Fruit leather naar Groningen)	14 tonne (2 axle) truck	2,5e+02	0,12	7,8
Hennep (Oude pekela > Groningen)	14 tonne (2 axle) truck	40	0,019	1,3
Total		1,3e+04	1,5	100

Breakdown by components

Component	Mass (kg)	Energy (MJ)	%
Zool rubber	0,065	0,31	20,7
Zool kurk	0,038	0,18	12,1
Upper fruit leer	0,16	0,77	51,2
Veters hennep	0,05	0,24	16,0
Total	0,31	1,5	100

Use:[Summary](#)**Relative contribution of static and mobile modes**

Mode	Energy (MJ)	%
Static	0	
Mobile	0	
Total	0	100

Disposal:[Summary](#)

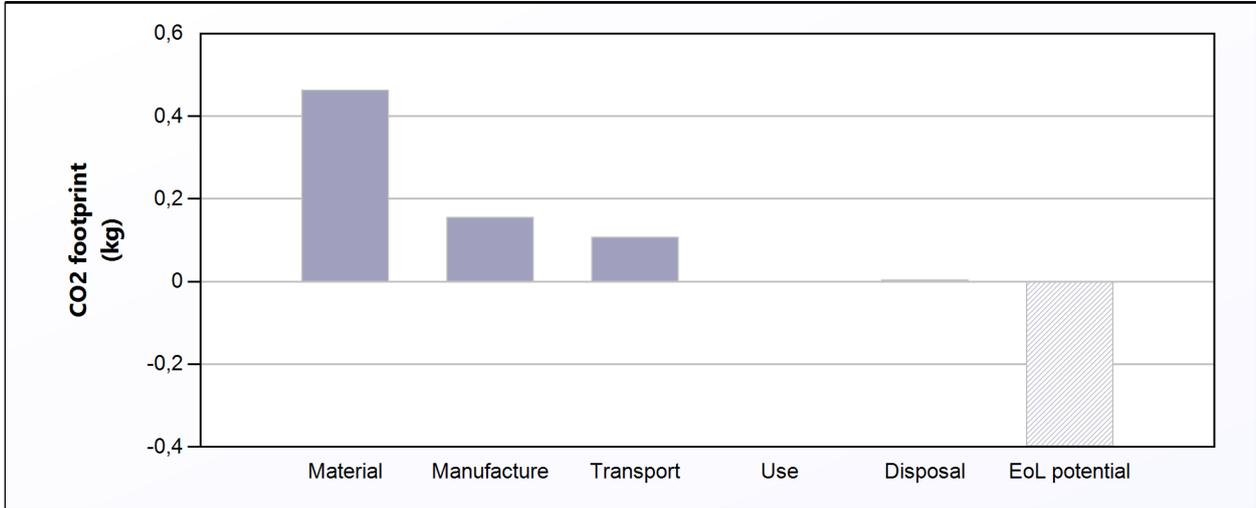
Component	End of life option	Energy (MJ)	%
Zool rubber	Re-manufacture	0,013	20,7
Zool kurk	Re-manufacture	0,0076	12,1
Upper fruitleer	Re-manufacture	0,032	51,2
Veters hennep	Re-manufacture	0,01	16,0
Total		0,063	100

EoL potential:

Component	End of life option	Energy (MJ)	%
Zool rubber	Re-manufacture	-4,8	45,4
Zool kurk	Re-manufacture	-0,038	0,4
Upper fruitleer	Re-manufacture	-5,4	51,0
Veters hennep	Re-manufacture	-0,35	3,3
Total		-11	100

Notes:[Summary](#)

CO2 Footprint Analysis

[Summary](#)


	CO2 (kg/year)
Equivalent annual environmental burden (averaged over 1 year product life):	0,732

Detailed breakdown of individual life phases

Material:

[Summary](#)

Component	Material	Recycled content* (%)	Part mass (kg)	Qty.	Total mass (kg)	CO2 footprint (kg)	%
Zool rubber	Natural rubber (NR)	Virgin (0%)	0,065	1	0,065	0,13	27,3
Zool kurk	Cork (quercus suber)	Virgin (0%)	0,038	1	0,038	0,0076	1,6
Upper fruitleer	Starch-based thermoplastics (TPS)	Virgin (0%)	0,16	1	0,16	0,25	53,8
Veters hennep	Hemp fiber	Virgin (0%)	0,05	1	0,05	0,08	17,2
Total				4	0,31	0,46	100

*Typical: Includes 'recycle fraction in current supply'

Manufacture:

[Summary](#)

Component	Process	Amount processed	CO2 footprint (kg)	%
Zool rubber	Polymer molding	0,065 kg	0,084	53,4
Upper fruitleer	Polymer extrusion	0,16 kg	0,073	46,6
Total			0,16	100

Transport:[Summary](#)**Breakdown by transport stage**

Stage name	Transport type	Distance (km)	CO2 footprint (kg)	%
Rubber (São Paulo > Santos haven)	32 tonne (4 axle) truck	1e+02	0,0021	2,0
Rubber (Santos haven > Rotterdam)	Ocean freight	1e+04	0,041	37,5
Rubber (Rotterdam haven > fabriek Zutphen)	26 tonne (3 axle) truck	1,5e+02	0,0037	3,4
Rubber (Zutphen > Groningen)	14 tonne (2 axle) truck	1,4e+02	0,0047	4,4
Kurk (Santarém > Zutphen)	32 tonne (4 axle) truck	2,2e+03	0,047	43,5
Upper (Rotterdam haven naar Fruit leather Rotterdam)	14 tonne (2 axle) truck	3,2	0,00011	0,1
Upper (Fruit leather naar Groningen)	14 tonne (2 axle) truck	2,5e+02	0,0084	7,8
Hennep (Oude pekela > Groningen)	14 tonne (2 axle) truck	40	0,0014	1,3
Total		1,3e+04	0,11	100

Breakdown by components

Component	Mass (kg)	CO2 footprint (kg)	%
Zool rubber	0,065	0,022	20,7
Zool kurk	0,038	0,013	12,1
Upper fruit leer	0,16	0,055	51,2
Veters hennep	0,05	0,017	16,0
Total	0,31	0,11	100

Use:[Summary](#)**Relative contribution of static and mobile modes**

Mode	CO2 footprint (kg)	%
Static	0	
Mobile	0	
Total	0	100

Disposal:[Summary](#)

Component	End of life option	CO2 footprint (kg)	%
Zool rubber	Re-manufacture	0,00091	20,7
Zool kurk	Re-manufacture	0,00053	12,1
Upper fruitleer	Re-manufacture	0,0022	51,2
Veters hennep	Re-manufacture	0,0007	16,0
Total		0,0044	100

EoL potential:

Component	End of life option	CO2 footprint (kg)	%
Zool rubber	Re-manufacture	-0,11	28,4
Zool kurk	Re-manufacture	0,00033	-0,1
Upper fruitleer	Re-manufacture	-0,22	54,2
Veters hennep	Re-manufacture	-0,069	17,5
Total		-0,4	100

Notes:[Summary](#)