



LIVAL - ENVIRONMENTAL PRODUCT DECLARATION

almost 60 years

dynamic light



Product Information

Product name:	Premium Slim GA69 CDM 70 FL silver
Product code:	18 705
Total weight:	920 g (without packaging)
Material content (weight-%)	
Plastics	36 %
Electronics	40 %
Glass	7 %
Aluminium	10 %
Light source	3 %
Cables	1 %

Product packaging is mainly corrugated cardboard, which can be recycled after use.

Environmental Information

Functional unit	1 product (without packaging)
Estimated lifetime	5 years
Estimated annual use	3 456 hours/a
Lifetime electricity use	1 380 kWh
Electricity used in production (Lival)	3 kWh
Lumen output	6 600 lumen
Estimated lifetime of the light source	10 000 hours

Environmental impacts include:

- Raw material acquisition and transport.
- Production and transport of components.
- Production, use of utilities and other supplementary actions at factory site.
- Product transport to the user (estimated transport distance = 100 km).
- Production of electricity consumed during the use phase.
- Production of supplementary light sources.
- End of use according to present practices.

The product is assumed to be used in Finland and the electricity profile is calculated according to the average Finnish electricity production profile (Nuclear 27%, hydro power 18%, hard coal 11%, natural gas 10%, peat 5%, others 12% and import 15%).

Total water use in production is about 800 grams per product.

Results of Inventory [g/item]

	Front-end 1)	Production	Use	Others 2)	Total
Air emissions					
Methane, CH4	10	<1	700	10	720
Carbon monoxide, CO	20	<1	300	<1	320
Carbon dioxide, CO2	4 970	380	272 730	130	278 210
Particulates	10	<1	400	<1	410
Hydrocarbons	10	<1	60	<1	70
HCl	<1	<1	90	<1	90
Nitrous oxide, N2O	<1	<1	10	<1	10
Nitrogen oxides, NOx	20	<1	480	1	500
Sulphur dioxide, SO2	40	<1	490	<1	530
Water emissions					
Chemical oxygen demand (COD)	<1	<1	<1	<1	<1
Oils	<1	0	30	<1	30
Nitrogen	<1	<1	<1	<1	<1
Nitrates	<1	<1	<1	0	<1
Sulphates	10	3	1 380	0	1 400
Total dissolved solids (TDS)	2	<1	640	0	640
Total suspended solids (TSS)	4	<1	70	0	75
Solid waste					
Ashes	15	10	10 200	2	10 230
Hazardous waste	20	40	1	0	61
Industrial solid waste	2 600	160	56 500	1 000	60 260
Total solid waste	2 635	210	66 700	1 002	70 550

1) Includes material acquisition

2) Includes waste treatment and all the transports (also transportation of materials and components)

It is assumed that the used products and packaging are landfilled after use. The material or energy content of these products has not been taken into account in the calculation of this profile.

Impact Assessment

Impact category	Unit	Production	Use	Total
Global warming potential (GWP)	kg CO2-equiv	6	290	296
Acidification	kg SO2-equiv	0,04	0,92	0,96
Eutrophication	kg PO4 -equiv	0,004	0,064	0,068
Primary energy	MJ	62	7 328	7 390

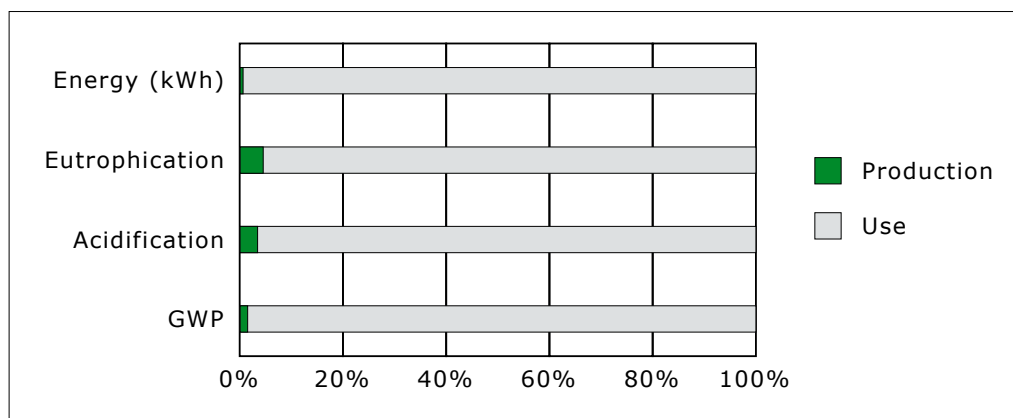


Figure 1. The division of the impact assessment results between production and use



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