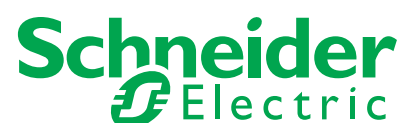
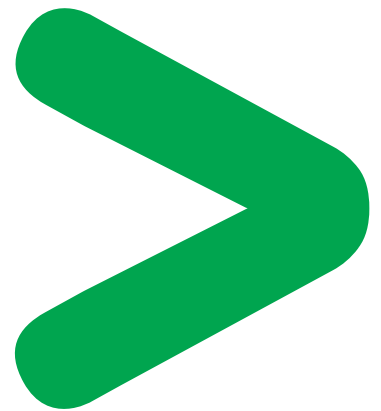
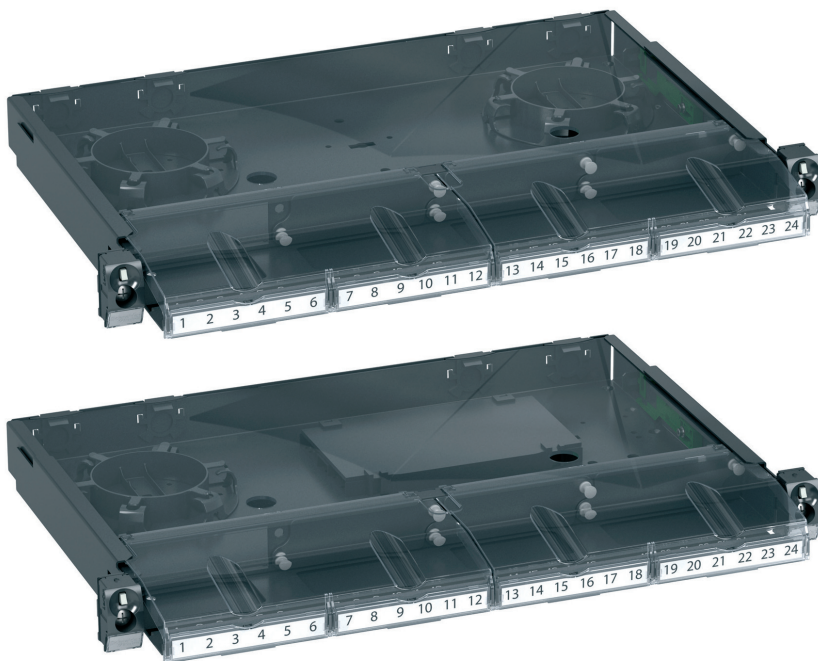


Product Environmental Profile

LexCom 19" fibre optic panel



Product Environmental Profile - PEP

Product Overview

The main function of the LexCom 19" 1U Fibre Optic Panel product range is to accommodate the LexCom Fibre Optic Cover Plates with Adaptors with in a 19" 1U rack mountable panel.

This range consists of:

- 1 x LexCom 19" 1U Fibre Optic Panel (VDIG 150 991)
- 1 x LexCom 19" 1U Fibre Optic Panel with Splice Tray (VDIG 150 991 001).

The representative product used for the analysis is LexCom 19" 1U Fibre Optic Panel Ref: VDIG150991.

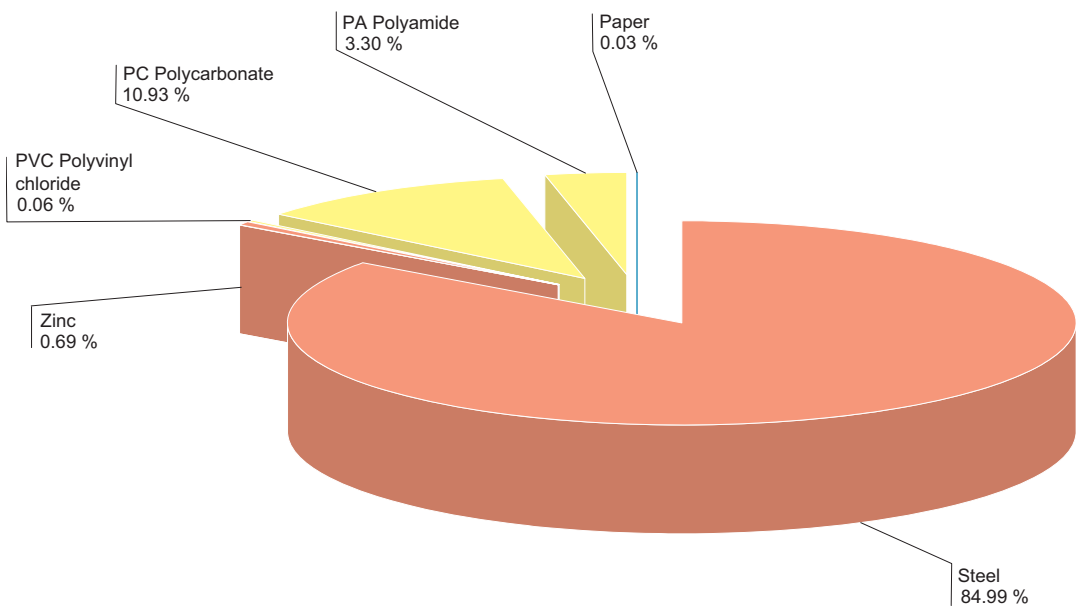
The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with the same technology.

The environmental analysis was performed in conformity with ISO 14040 "Environmental management: Life cycle assessment – Principle and framework".

This analysis takes the stages in the life cycle of the product into account.

Constituent materials

The mass of the product spread for the LexCom 19" 1U Fibre Optic Panels are between 3573 g and 3630g excluding packaging. It is 3573 g for the LexCom 19" 1U Fibre Optic Panel Ref: VDIG150991. The constituent materials are distributed as follows.



Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2002/95/EC of 27 January 2003) and do not contain, or in the authorised proportions, lead, mercury, cadmium, chromium hexavalent, flame retardant (polybromobiphenyles PBB, polybromodiphenylthers PBDE) as mentioned in the Directive.

Manufacturing

The LexCom 19" 1U Fibre Optic Panels are manufactured at a production site which complies with the regulations governing industrial sites.

Distribution

The weight and volume of the packaging have been reduced, in compliance with the European Union's packaging directive. The LexCom 19" 1U Fibre Optic Panels packaging weight is approximately 475,8 g. It consists of PE (Low Density, LDPE, Film) 2,4 g, Paper (Recycled, With Deinking) 13,4g, Cardboard (Duplex-Triplex) 460 g. The product distribution flows have been optimised by setting up local distribution centres close to the market areas.

Product Environmental Profile - PEP

Utilization

The products of the LexCom 19" 1U Fibre Optic Panel range do not generate environmental pollution requiring special precautionary measures (noise, emissions, and so on).
The electrical power consumed by the LexCom 19" 1U Fibre Optic Panel product range is zero watts.

End of life

At end of life, the products in the LexCom 19" 1U Fibre Optic Panel range can be dismantled to facilitate the recovery of the various constituent materials.

The proportion of recyclable material is higher than 81%.

This percentage includes the following materials: PVC Polychlorure de vinyle, PC Polycarbonate, PA Polyamide, PET Polyethylene Terephthalate, Paper, Steel, Zinc.

The end of life details appear on the product end-of-life recovery sheet.

Environmental impacts

The EIME (Environmental Impact and Management Explorer) software, version 4.0, and its database, version V10 were used for the life cycle assessment (LCA).

The assumed service life of the product is 20 years with a utilisation rate of the installation of 100% and the electrical power model used is OFF (ON, OFF, Stand by).

The scope of the analysis was limited to a LexCom 19" 1U Fibre Optic Panel Ref: VDIG150991 001.

The environmental impacts were analysed for the Manufacturing (M) phases, including the processing of raw materials, and for the Distribution (D) and Utilisation (U) phases.

Presentation of the environmental impacts

Environmental indicators	Short	Unit	LexCom 19" fibre optic panel (1 unit)			
			S = M + D + U	M	D	U
Raw material depletion	RMD	Y-1	9.4473E ⁻¹⁶	9.0145E ⁻¹⁶	4.3278E ⁻¹⁷	0.00E ⁺⁰⁰
Energy depletion	ED	MJ	2.2353E ²	1.9252E ²	31.015	0.00E ⁺⁰⁰
Water depletion	WD	dm ³	1.1241E ²	1.0562E ²	6.791	0.00E ⁺⁰⁰
Global warming	GW	g ~CO ₂	1.6585E ⁴	1.4822E ⁴	1.7627E ³	0.00E ⁺⁰⁰
Ozone depletion	OD	g ~CFC-11	1.5933E ⁻³	5.0049E ⁻⁴	1.0928E ⁻³	0.00E ⁺⁰⁰
Photochemical ozone creation	POC	g ~C ₂ H ₄	3.88	2.509	1.371	0.00E ⁺⁰⁰
Air acidification	AA	g ~H ⁺	1.699	1.463	2.3554E ⁻¹	0.00E ⁺⁰⁰
Hazardous waste production	HWP	kg	5.5604E ⁻²	5.5006E ⁻²	5.985E ⁻⁴	0.00E ⁺⁰⁰

The life cycle analysis shows that the Manufacturing phase (M phase) is the life cycle phase which has the greatest impact on the majority of environmental indicators.

The environmental impacts variability between the upper part and the lower part of the range is less than 3 %.

Product Environmental Profile - PEP

System approach

As the product of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction within an assembly or an installation submitted to this Directive.

*N.B.: please note that the environmental impacts of the product depend on the use and installation conditions of the product.
Impacts values given above are only valid within the context specified and cannot be directly used to draw up the environmental assessment of the installation.*

Glossary

Raw Material Depletion (RMD)	This indicator quantifies the consumption of raw materials during the life cycle of the product. It is expressed as the fraction of natural resources that disappear each year, with respect to all the annual reserves of the material.
Energy Depletion (ED)	This indicator gives the quantity of energy consumed, whether it be from fossil, hydroelectric, nuclear or other sources. This indicator takes into account the energy from the material produced during combustion. It is expressed in MJ.
Water Depletion (WD)	This indicator calculates the volume of water consumed, including drinking water and water from industrial sources. It is expressed in dm ³ .
Global Warming (GW)	The global warming of the planet is the result of the increase in the greenhouse effect due to the sunlight reflected by the earth's surface being absorbed by certain gases known as "greenhouse-effect" gases. The effect is quantified in gram equivalent of CO ₂ .
Ozone Depletion (OD)	This indicator defines the contribution to the phenomenon of the disappearance of the stratospheric ozone layer due to the emission of certain specific gases. The effect is expressed in gram equivalent of CFC-11.
Photochemical Ozone Creation (POC)	This indicator quantifies the contribution to the "smog" phenomenon (the photochemical oxidation of certain gases which generates ozone) and is expressed in gram equivalent of ethylene (C ₂ H ₄).
Air Acidification (AA)	The acid substances present in the atmosphere are carried by rain. A high level of acidity in the rain can cause damage to forests. The contribution of acidification is calculated using the acidification potentials of the substances concerned and is expressed in mode equivalent of H ⁺ .
Hazardous Waste Production (HWP)	This indicator calculates the quantity of specially treated waste created during all the life cycle phases (manufacturing, distribution and utilization). For example, special industrial waste in the manufacturing phase, waste associated with the production of electrical power, etc. It is expressed in kg.

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