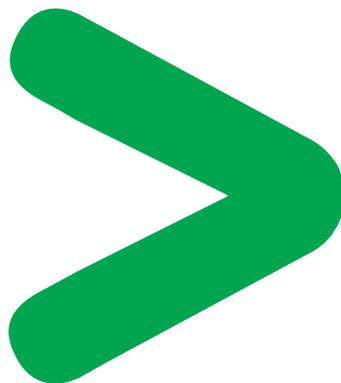


Product Environmental Profile

Actassi.Cabling VDA 19" Rack standard



Product Environmental Profile – PEP

The range Actassi.Cabling VDA 19” rack has for main function to protect electrical equipments (computers, telecommunications, brewing...) that it receives. This range is composed of racks standard with and without side panel from 24 U to 47 U.

The representative product used to make the study is Actassi.Cabling VDA 19” rack 42 U 800*800*2000 (Ref.: NSYVDA42U88B).

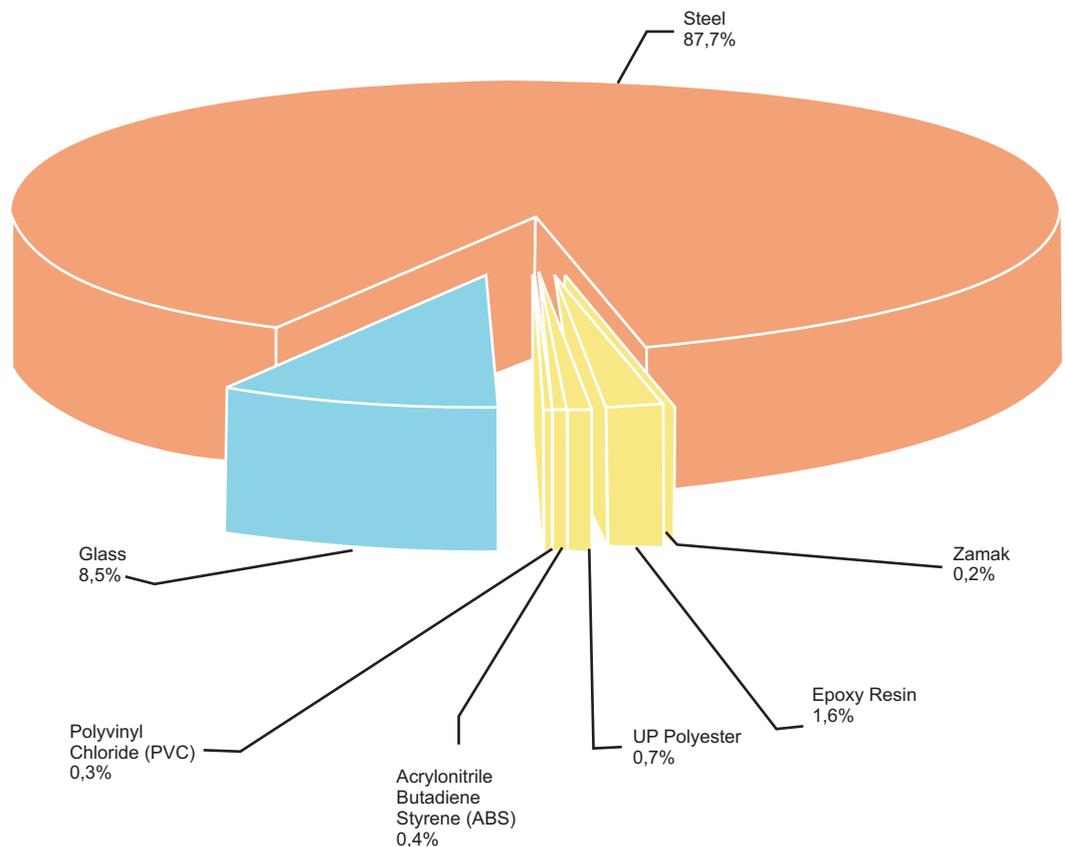
Environmental impacts of this product took in reference, are representative of the impacts of the other products of the range, produced with the same technology. The environmental analysis has been realized in conformity with ISO14040 standard “Environmental management: life cycle analysis, principle and frame”. This analysis takes into account the stages of the life cycle of the product.

Constitutive materials

The weight of each product of the range is spread from 39 kg to 110 kg without packaging. It is 104 kg for the Actassi.Cabling VDA 19” rack 42 U 800*800*2000 analyzed.

The constituent materials are distributed like this:

Class	Matters	Weight (g)	%
Metals	Steel	91888,4	88,2%
	Zamak	207,6	0,2%
Plastic	Epoxy Resin	1695,6	1,6%
	UP Polyester	737,2	0,7%
	Acrylonitrile Butadiene Styrene (ABS)	402,0	0,4%
	Polyvinyl Chloride (PVC)	330,3	0,3%
Other	Glass	8835,8	8,5%
	Total	104165,6	99,934%



Product Environmental Profile – PEP

All necessary measures are taken by our services, suppliers and subcontractors to ensure that materials used in composition of the range Actassi.Cabling VDA 19" rack contain no substance banned by the rule when it is placed on the market.

The products are designed in accordance with the requirements of the ROHS directive, (Directive 2002/95/EC of January 27, 2003) and do not contain, over thresholds allowed, lead, mercury, cadmium, hexavalent chromium, or flame retardants (polybrominated diphenyl PBD, polybrominated diphenyl ether PBDE) as mentioned in the directive.

Manufacturing

The range Actassi.Cabling VDA 19" rack is manufactured in a Schneider Electric production site which has setting up an environmental management system certified ISO14001.

Distribution

Packages have been designed to reduce their weight and volume, according to the packaging directive of the European Union.

The weight of the packaging of the Actassi.Cabling VDA 19" rack 42 U 800*800*2000 is 12.17 kg. It is composed of cardboard (1.8 kg), wood (9.92 kg) and polyethylene (445 g).

The weight gain packaging is 10% compared to the previous version.

The flows of product distribution are optimized by the establishment of local distribution centres near the local market areas.

Use

Actassi.Cabling VDA 19" racks products do not present nuisances involving special precautions (noise, emissions...).

End of life

At the end of life, products of the range Actassi.Cabling VDA 19" rack must be dismantled in order to better promote the different materials constituent.

The potential for recycling is more than 90%. This percentage includes metallic materials conform to the ROHS directive, plastics marked. According to the treatment process, the door containing the glass must be separated from the flow to improve the recovery of product.

Product Environmental Profile – PEP

Environmental impacts

The Life Cycle Analysis (LCA) has been realized with the software EIME (Environmental Impact and Management Explorer) version 4.0 and its database version 10.0.

The hypothesis of life of the product is 20 years.

The perimeter analyzed is composed of a Actassi.Cabling VDA 19” rack 42 U 800*800*2000.

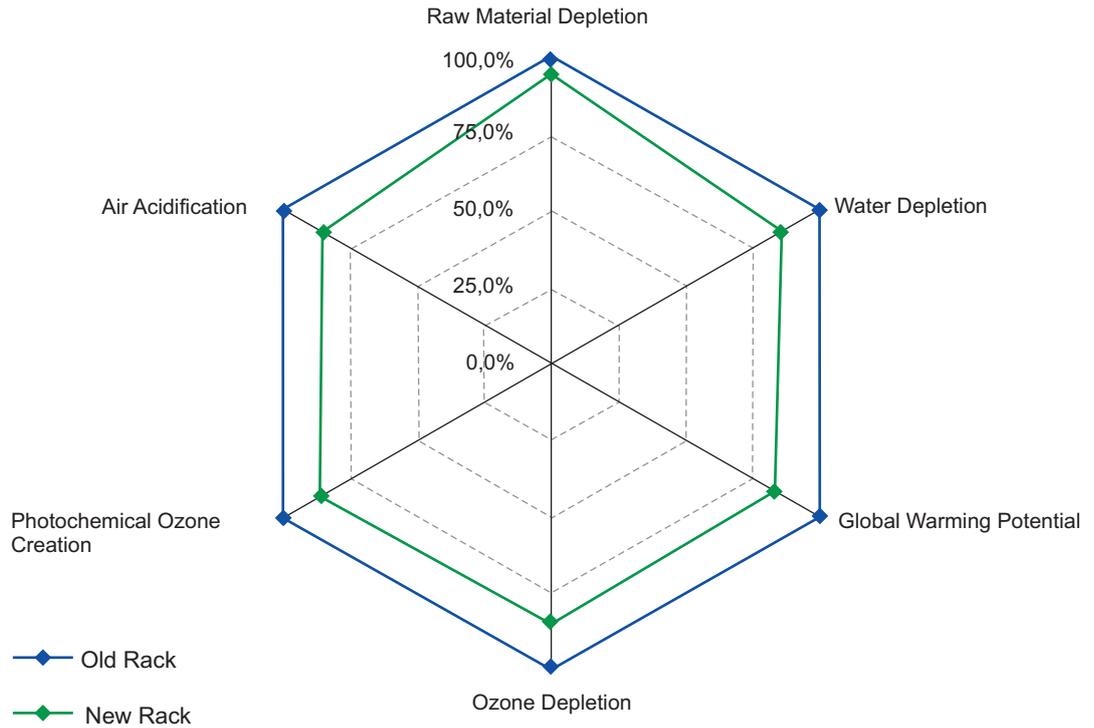
Environmental impacts have been analyzed for the phases Manufacturing (M), including the development of raw materials, Distribution (D) and Utilization (U).

Presentation of environmental impacts of the product:

Environmental indicators	Unit	For a Actassi.Cabling 19” rack NSYVDA42U88B			
		S=M+D+U	M	D	U
Raw Material Depletion	Y-1	3.1929E-14	3.1782E-14	1.4761E-16	0.00E+00
Energy Depletion	MJ	3.9529E3	3.6704E3	2.8245E2	0.00E+00
Water Depletion	dm3	1.8542E3	1.7619E3	92.295	0.00E+00
Global Warming	g ~CO2	3.2879E5	3.2221E5	6.577E3	0.00E+00
Ozone Depletion	g ~CFC-11	3.2173E-2	2.8224E-2	3.9491E-3	0.00E+00
Air Toxicity	m3	4.7909E7	4.6177E7	1.732E6	0.00E+00
Photochemical Ozone Creation	g ~C2H4	66.226	60.439	5.787	0.00E+00
Air Acidification	g ~H+	34.3	33.052	1.248	0.00E+00
Water Toxicity	dm3	7.6051E4	7.4232E4	1.8181E3	0.00E+00
Water Eutrophication	g ~PO4	7.806	7.174	6.3212E-1	0.00E+00
Hazardous Waste Production	kg	4.9625E-1	4.8566E-1	1.059E-2	0.00E+00

Product Environmental Profile – PEP

Comparison of the environmental impacts of the new range compared to the preceding one



The life cycle analysis has allowed to notice that the Manufacturing phase (M phase) is the most influence phase of life on the majority environmental indicators and environmental parameters of this phase have been optimized for conception.

The product benefits from a reduction of its mass of steel by 12.5% and therefore its painted surface which reduces its impact on environment, on average of 11% on all environmental indicators taken into account, compared to the previous range.

For other products than the reference product, environmental impacts are proportional to the weight of product, but not for the indicator Raw material depletion, which is proportional to the weight of ZAMAK and ABS.

System approach

The products designed in compliance with the ROHS directive (2002/95/EC of January 27, 2003), they can be integrated without restriction to equipment or installation that would be submitted directly to this regulation.

NB: environmental impacts of the product depend on the conditions of installation and use of the product.

The values of environmental impacts listed in the table above are valid only within the frame specified and can not be directly used to determine the environmental balance of the facility.

This document is based on the ISO14020 standard on the general principles of environmental statements and on the ISO14025 standard environmental statements type III.

Product Environmental Profile – PEP

Glossary

Raw Material Depletion (RMD)

The RMD indicator calculates the depletion of natural resources, taking into account the size of the reserve for that resource in the ground and the consumption rate of today's economy. It is expressed in the fraction of the reserve disappearing per year (because the consumption rate is expressed as a quantity per year).

Global Warming Potential (GWP)

The GWP indicator calculates the contribution to the global warming of the atmosphere by the release of specific gases. It is expressed in grams of CO₂, as if all gases were CO₂, using equivalency in their warming potential.

Ozone Depletion (OD)

The OD indicator calculates the contribution to the depletion of stratospheric ozone layer by release of specific gases. It is expressed in grams of CFC-11, as if all gases were CFC-11, using equivalency in their depletion potential.

Photochemical Ozone Creation (POC)

The POC indicator calculates the potential creation of tropospheric ozone ("smog") by the release of specific gases which will become oxidants in the low atmosphere under the action of the solar radiation. It is expressed in grams of ethylene (C₂H₄), as if all substances were C₂H₄, using their equivalent potential.

Air Acidification (AA)

The AA indicator presents the air acidification by gases released to the atmosphere. It is expressed in grams of H⁺, as if all gases were H⁺, using equivalency in their acidification potential.

Water Depletion (WD)

WD indicator calculates the consumption of water.



We will engage ourselves for our planet "To combine innovation and continuous improvement to take up the new environmental challenges".

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