

Statement of Verification

BREG EN EPD No.: 000552

Issue 01

This is to verify that the
Environmental Product Declaration
provided by:
Mayflex UK Limited



is in accordance with the requirements of:
EN 15804:2012+A2:2019
and
BRE Global Scheme Document SD207

This declaration is for:
1 unit of CAT6/6A shielded or unshielded keystone Jack, CAT6A-6 port shielded or unshielded module, or Screened Field Termination RJ45 Plug.

Company Address

Mayflex UK Limited
Unit 15,
Junction Six Industrial Park,
Electric Avenue
Birmingham
B6 7JJ



Signed for BRE Global Ltd

Emma Baker
Operator

30 January 2024
Date of this Issue

30 January 2024
Date of First Issue

29 January 2029
Expiry Date



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BRE Global Ltd., Garston, Watford WD25 9XX.
T: +44 (0)333 321 8811 F: +44 (0)1923 664603 E: Enquiries@breglobal.com



Environmental Product Declaration

EPD Number: 000552

General Information

EPD Programme Operator	Applicable Product Category Rules
BRE Global Watford, Herts WD25 9XX United Kingdom	BRE Environmental Profiles 2013 Product Category Rules for Type III environmental product declaration of construction products to EN 15804+A2 PN 514 Rev 3.1
Commissioner of LCA study	LCA consultant/Tool
Mayflex UK Limited Unit 15, Junction Six Industrial Park, Electric Avenue Birmingham B6 7JJ	LCA Tool: BRE LINA A2 LCA Consultant: Bala Subramanian
Declared/Functional Unit	Applicability/Coverage
1 unit of CAT6/6A shielded or unshielded keystone Jack, CAT6A-6 port shielded or unshielded module, or Screened Field Termination RJ45 Plug.	Other (please specify). Product specific
EPD Type	Background database
Cradle to Gate with options	ecoinvent
Demonstration of Verification	
CEN standard EN 15804 serves as the core PCR ^a	
Independent verification of the declaration and data according to EN ISO 14025:2010 <input type="checkbox"/> Internal <input checked="" type="checkbox"/> External	
(Where appropriate ^b)Third party verifier: Pat Hermon	
a: Product category rules b: Optional for business-to-business communication; mandatory for business-to-consumer communication (see EN ISO 14025:2010, 9.4)	
Comparability	
Environmental product declarations from different programmes may not be comparable if not compliant with EN 15804:2012+A2:2019. Comparability is further dependent on the specific product category rules, system boundaries and allocations, and background data sources. See Clause 5.3 of EN 15804:2012+A2:2019 for further guidance	

Information modules covered

Product			Construction		Use stage							End-of-life				Benefits and loads beyond the system boundary
					Related to the building fabric					Related to the building						
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw materials supply	Transport	Manufacturing	Transport to site	Construction – Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse, Recovery and/or Recycling potential
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Note: Ticks indicate the Information Modules declared.

Manufacturing site(s)

Mayflex UK Limited
 Unit 15,
 Junction Six Industrial Park,
 Electric Avenue
 Birmingham
 B6 7JJ

Construction Product:

Product Description

Excel range of Keystone Jacks, Module, Plugs and Cassettes for RJ45 connections. The range encompasses screened (FTP) and unscreened (UTP) high performance RJ45 connectors in both CAT6 & CAT6A versions. All products are fully standards compliant to ISO/IEC 11801, EN 50173 and ANSI/TIA 568. The shielded jacks are toolless and feature zinc-die-cast housings. They simply require the rear clamshell to be closed to make the connection to the cable. Low profile jacks are ideal for applications where space/depth is limited, or high density is required as they suitable for fitting into standard backboxes, dado and high density 48-way 1U panels or 24-way 0.5U panels. Angled jacks (100-185) are designed for patch panels and allow for patching without the need for horizontal patchcord management, providing a very neat and space saving solution for patching frames.

The unshielded jack range includes both toolless & traditional punch-down options and are available in either black or white to suit the aesthetics of the application. All the jacks can be fitted in our range of 19” or 10” patch panels, GOPs/enclosures and shutters – both flat and angled for 6C and Euro apertures. The jacks can be purchased in both single packs and 24-packs in plastic free packaging.

Excel 6 Port Screened and Unscreened CAT6 & CAT6A ExpressNet Modules (100-235 & 100-237) offer a flexible and quick way to terminate and install structured cabling. Manufactured from high impact flame retardant plastic (unscreened) or Die-cast Zinc alloy (screened), the modules use IDC punch downs for the termination of the copper cables. The incoming cables are secured in place with cable ties resulting in a fully covered termination. The modules are easily fitted and removed from the rear of the ExpressNet patch panel by activating release latches. The panel allows for the fitting of the full range of available cassettes for both copper and fibre optics, creating a hybrid panel, which is ideal for smaller installs where space is limited.

The 100-140 Screened Field Termination RJ45 Plug offers easy, toolless termination, and it complies fully with ISO/IEC 11801, CAT6A and ANSI/TIA-568-C.2 standards. It offers a fully shielded die-cast zinc alloy, nickel plated body and gold-plated phosphor bronze contact pins. Suitable for cable diameters between 6 and 8mm, strain relief is provided by the compression nut on the back of the connector. IDC termination accepts wire

gauges from 23 to 26AWG. The plug offers excellent performance and is ideal for direct connection in MPTL applications, harness links etc.

Product	Item Code / Colour	Weight/unit
RJ45 CAT6A Shielded & Unshielded Keystone Jacks	100-181	0.020
	100-181-24	0.468
	100-182-BK	0.013
	100-182-BK -24	0.302
RJ45 CAT6 Unshielded Keystone Jacks	100-215	0.007
	100-215-24	0.163
RJ45 CAT6A Shielded Angled Jacks	100-185	0.033
	100-185-24	0.782
RJ45 CAT6A 6-Port Shielded Module	100-237	0.305
RJ45 CAT6 6-Port Unshielded Module	100-235	0.079
RJ45 CAT6A Unshielded Punch down Keystone Jack	100-156	0.018
RJ45 CAT6A Shielded Keystone Jack	100-179	0.020
	100-179-24	0.640
RJ45 CAT6 Shielded Keystone Jack	100-209	0.020
	100-209-24	0.500
Screened Field Termination RJ45 Plug	100-140	0.018

Keystone Jacks are available in a single piece or box of 24. In this EPD, a CAT6A shielded keystone jack with a box of 24 (100-181-24) with the weight of 0.468 kg/unit has been modelled, so the end user of this EPD can enable individual product calculation by dividing the impacts by the weight of the box containing 24 pieces and then multiplying the impacts by the weight of the individual product. The same scenario should be applied to the CAT6A-shielded angled jacks. The individual product analysis has been conducted for 6-port shielded/unshielded and the RJ45 plug, and the results are enclosed in this EPD.

Technical Information

Property	RJ45 CAT6A Shielded & Unshielded Keystone Jacks (100-181&-24, 100-182 &-24)	RJ45 CAT6 Unshielded Keystone Jacks (100-215 &100-215-24)
Shielded	Yes	No
Requires termination tool	No	No
Suitable for round cable	Yes	Yes
Suitable for flat cable	No	No
Suitable for solid cable	Yes	Yes
AWG-range	22...26	22...26
Width	16.2mm	16.2mm
Depth	28.3mm	28.3mm

Property	RJ45 CAT6A Shielded & Unshielded Keystone Jacks (100-181&-24, 100-182 &-24)	RJ45 CAT6 Unshielded Keystone Jacks (100-215 &100-215-24)
Height	21.5mm	21.5mm
Housing	ABS / Die cast Zinc-alloy	ABS High-Impact
RJ45 Contacts	Nickel plated phosphor bronze alloy with 50 micro-inch gold plating	Nickel plated phosphor bronze alloy with 50 micro-inch gold plating
IDC Contacts	Tin plated phosphor bronze alloy	Tin plated phosphor bronze alloy
RJ45 Life	Minimum 750 insertions	Minimum 750 insertions
Storage temperature	-40 to +70°C	-40 to +70°C
Operating temperature	-10 to +60°C	-10 to +60°C

Property	RJ45 CAT6A Shielded Angled Jacks (100-185 &100-185-24)	RJ45 CAT6A 6-Port Shielded Module (100-237)
Shielded	Yes	Yes
Requires termination tool	No	Punch-Down
Suitable for round cable	Yes	Yes
Suitable for flat cable	No	No
Suitable for solid cable	Yes	Yes
AWG-range	22...26	22...24
Width	17mm	92.95mm
Depth	49mm	90mm
Height	26mm	18mm
Housing	Die cast Zinc-alloy	Die cast Zinc-alloy
RJ45 Contacts	Nickel plated phosphor bronze alloy with 50 micro-inch Gold plating	Nickel plated phosphor bronze alloy with 50 micro-inch Gold plating
IDC Contacts	Tin plated phosphor bronze alloy	Tin plated phosphor bronze alloy
RJ45 Life	Minimum 750 insertions	Minimum 750 insertions
Storage temperature	-40 to +70°C	-40 to +70°C
Operating temperature	-10 to +60°C	-10 to +60°C

Property	RJ45 CAT6 6-Port Unshielded Module (100-235)	RJ45 CAT6A Unshielded Punch down Keystone Jack (100-156)
Shielded	No	No
Requires termination tool	Punch-Down	Punch-Down
Suitable for round cable	Yes	Yes
Suitable for flat cable	No	No
Suitable for solid cable	Yes	Yes
AWG-range	22...24	22...26
Width	92.95mm	17mm
Depth	90mm	31.25mm
Height	18mm	19.3mm

Property	RJ45 CAT6 6-Port Unshielded Module (100-235)	RJ45 CAT6A Unshielded Punch down Keystone Jack (100-156)
Housing	ABS High-Impact	ABS High-Impact
RJ45 Contacts	Nickel plated phosphor bronze alloy with 50 micro-inch Gold plating	Nickel plated phosphor bronze alloy with 50 micro-inch Gold plating
IDC Contacts	Tin plated phosphor bronze alloy	Tin plated phosphor bronze alloy
RJ45 Life	Minimum 750 insertions	Minimum 750 insertions
Storage temperature	-40 to +70°C	-40 to +70°C
Operating temperature	-10 to +60°C	-10 to +60°C

Property	RJ45 CAT6A Shielded Keystone Jack (100-179 & 100-179-24)	RJ45 CAT6 Shielded Keystone Jack (100-209 & 100-209-24)
Shielded	Yes	Yes
Requires termination tool	No	No
Suitable for round cable	Yes	Yes
Suitable for flat cable	No	No
Suitable for solid cable	Yes	Yes
AWG-range	22...26	22...26
Width	16.6mm	16.6mm
Depth	34.3mm	34.3mm
Height	19.2mm	19.2mm
Housing	Zinc alloy	Zinc alloy, Nickel Plated
RJ45 Contacts	Nickel Plated	50 microinch gold over 100 microinch nickel undercoat
IDC Contacts	50 microinch gold over 100 microinch nickel undercoat	Phosphor bronze, tin over nickel undercoat
RJ45 Life	Phosphor bronze, tin over nickel undercoat	Minimum 750 insertions
Storage temperature	750 insertions	-40 to +68°C
Operating temperature	-40 to +68°C	-10 to +60°C

Property	RJ45 CAT6A Shielded Field-Terminable Plug (100-140)
Requires termination tool	No
Suitable for round cable	Yes
Suitable for flat cable	No
Suitable for stranded core	No
Suitable for solid cable	Yes
AWG-range	23...26
Electrical Insulation Resistance	500MΩ @ 100Vdc
Dielectric Withstanding Voltage	1000Vdc or AC Peak
Contact to Contact	1500Vdc or AC Peak

Property	RJ45 CAT6A Shielded Field-Terminable Plug (100-140)
Contact to Shield	60Hz for 1 minute
Width	13.8mm
Depth	55.3mm
Height	15mm
Housing	Zinc Alloy die-Cast
Finish	Nickel Plate
RJ45 Contacts	Phosphor bronze, 50 micro-inch Gold plating
IDC Contacts	Phosphor bronze, 100 micro-inch 100% Sn alloy



Main Product Contents

Material Input	CAT6A Shielded & Unshielded Keystone	Shielded Angled Jacks	CAT6 6-Port Unshielded Module	CAT6A 6-Port Shielded Module	RJ plug
PCB	5-10%	5-10%	5-10%	10-15	0-5%
Polycarbonate	5-10%	5-10%	5-10%	90-95%	90-95%
Zinc alloy	80-85%	80-85%	80-85%	0.00	0.00%
Phosphor Bronze	0-5%	0-5%	0-5%	0-1%	0.00%
Stainless steel	1-5%	1-5%	1-5%	0-2%	1-5%
Copper	1-5%	1-5%	1-5%	0-2%	1-5%

Manufacturing Process

The manufacturing of these connectors involves several different processes, starting with the raw materials and ending with the completed assemblies. The products include several components, and the assembly is carried in stages to produce sub-assemblies. Each sub-assembly is quality checked prior to moving on to the next process.

Firstly, the raw materials are checked for conformance. This includes the plastics, PCB's, pins and metals that are used to make up the assemblies. Once all the materials are verified, the mouldings can be produced. This

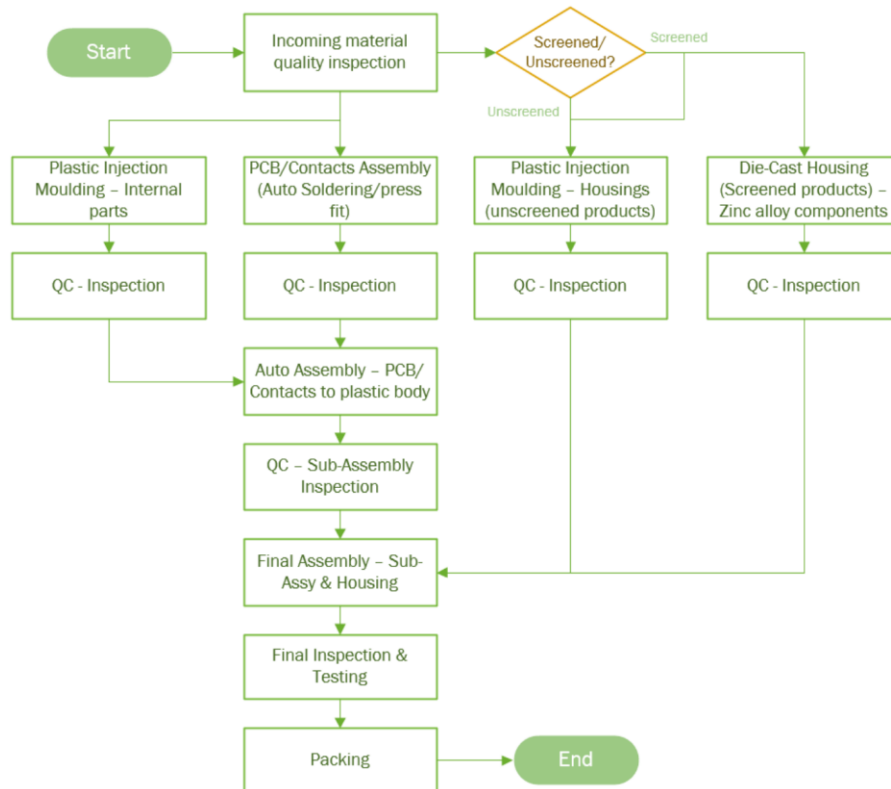
is a process of injection moulding, where the plastics are melted and injected into a high-precision mould. This applies to all the plastic parts used in the assemblies, including the housings for unshielded connectors. For Shielded connectors, there is the addition of the die-cast housing. This process is similar to injection moulding but uses molten metal (zinc-alloy) which is injected into a precision die. Once the plastic mouldings and die-castings are complete, they are cooled and inspected to ensure they are of good quality and dimensionally within tolerance.

The next stage in all products is to assemble the PCB's (Printed Circuit Boards). This involves taking the PCB's and mounting the contacts (pins) to it, then soldering the pins in place or press-fitting the pins to the PCB. This is carried out by an automatic pick-and-place machine. The soldering (if required) is carried out on a conveyor which passes the assemblies over a molten solder bath. Again, these are inspected by an automatic visual inspection system. All solder used is lead-free.

Once the PCB/Contact assembly is complete, the final assembly takes place. This involves bringing all the components together, which includes the PCB/Contact assembly, inner plastic parts and outer housing, which can be a plastic moulding (for unshielded connectors) or die-cast metal (for shielded connectors). This process is also carried out on automatic machines, where the components are generally fed into a press by vibrating bowl feeders and pick-and-place machines. All parts are aligned in jigs and pressed together. Finally, all assemblies are visually and electrically tested for conformance and packed together with accessories (such as wire managers, cable ties, termination instructions etc.)

Process flow diagram

Excel Jacks, Modules & Plugs



Construction Installation

Installation of Keystone Jack is generally carried out by manual labour, no powered equipment or consumable items are used in this process, so no waste is generated during the installation.

End of Life

It is not economical to recycle plastic data modules therefore they are taken to landfill via a WEEE registered commercial waste disposal company. Any waste produced by a business — including (but not limited to) paper, cardboard, cans, and retail packaging — is commercial waste. For this reason, it legally has to be discarded in a specific way and collection must be by a registered broker.

Life Cycle Assessment Calculation Rules

Declared / Functional unit description.

1 unit of CAT6/6A shielded or unshielded keystone Jack, CAT6A-6 port shielded or unshielded module, or Screened Field Termination RJ45 Plug

System boundary

This is a cradle-to-gate LCA, reporting all production life cycle stages of modules A1 to A3 and A4 and A5 (Transportation and installation) and end of life stages C1-C4, and D in accordance with EN 15804:2012+A2:2019 and BRE 2021 Product Category Rules (PN 514 Rev 3.1).

Data sources, quality and allocation

The quantity used in the data collection for this EPD is the total quantity of Cat6A FTP Screened Low Profile Keystone Jack, Cat6a STP Screened Angled Keystone Jack, FTP Screened/Unscreened 6 Port ExpressNet Module, and Screened Field Termination RJ45 Plug manufactured as a proportion of the total manufactured, during the data collection period (01/01/21-31/12/21). Mayflex receives the data cables from their PRC manufacturing partners, therefore the transportation used to transfer the products from PRC to the UK is included in the LCA analysis. Other products are manufactured in addition to Keystone Jack, port module, RJ45 Plug; therefore, the allocation of electricity and water consumption and discharge are required, and this has been done according to the provisions of the BRE PCR PN514 and EN15804.

In this EPD, Cat6A FTP Screened Low Profile Keystone Jack (100-181-24) with the weight of 0.468 per unit, Cat6a STP Screened Angled Keystone Jack Toolless (100-185-24) with the weight of 0.7824 per unit has been modelled, so the end user of this EPD can enable the calculation for the individual product by using the individual product weight. In addition, Excel Cat6 6 Port Unscreened ExpressNet Module with the weight of 0.079 per unit, FTP Screened 6 Port ExpressNet Module with the weight of 0.305 per unit, and Screened Field Termination RJ45 Plug with the weight of 0.0183 per unit has been modelled and the LCA results are enclosed in this EPD.

Secondary data has been obtained for all other upstream and downstream processes that are beyond the control of the manufacturer (i.e., raw material production) from the ecoinvent 3.8 database. All ecoinvent datasets are complete within the context used and conform to the system boundary and the criteria for the exclusion of inputs and outputs, according to the requirements specified in EN15804 A2.

ISO14044 guidance. Quality Level	Geographical representativeness	Technical representativeness	Time representativeness
Very Good	Data from area under study.	Data from processes and products under study. Same state of technology applied as defined in goal and scope (i.e., identical technology).	n/a
Very Good	n/a	n/a	There is approximately 1-2 years between the Ecoinvent LCI reference year, and the time period for which

ISO14044 guidance. Quality Level	Geographical representativeness	Technical representativeness	Time representativeness
			the LCA was undertaken.

Specific Global and European datasets have been selected from the ecoinvent LCI for this LCA. Manufacturer uses the national grid electricity for production, so therefore the national grid electricity dataset has been used for the LCA modelling (Ecoinvent 3.8). The GWP carbon footprint for using 1 kWh of Electricity, China is 1.054 in kgCO₂e/kWh. The quality level of time representativeness is also Very Good as the background LCI datasets. Are based on ecoinvent v3.8 which was compiled in 2021. Therefore, there is less than 5 years between the ecoinvent LCI reference year and the time period for which the LCA was undertaken

Cut-off criteria

All raw materials and energy inputs to the manufacturing process have been included. There were no ancillary materials used during the production and no direct emissions to air, water, or soil, which were not measured, and there were no non-production wastes recorded during the production period.

LCA Results - Cat6A FTP Screened Low Profile Keystone Jack Toolless Silver with the weight of 0.468 per unit.

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP	EP-freshwater
			kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CFC11 eq	mol H ⁺ eq	kg (PO ₄) ³⁻ eq
Product stage	Raw material supply	A1	3.24E+00	3.18E+00	4.73E-02	6.92E-03	1.69E-07	3.44E-02	3.10E-03
	Transport	A2	1.23E-01	1.23E-01	1.37E-05	7.98E-05	2.53E-08	3.16E-03	4.95E-06
	Manufacturing	A3	8.86E-01	9.22E-01	-3.74E-02	7.10E-04	1.65E-08	4.82E-03	2.32E-04
	Total (Consumption grid)	A1-3	4.25E+00	4.23E+00	9.93E-03	7.71E-03	2.11E-07	4.24E-02	3.34E-03
Construction process stage	Transport	A4	1.34E-02	1.34E-02	1.14E-05	5.25E-06	3.10E-09	5.43E-05	8.62E-07
	Construction	A5	1.72E-03	-4.90E-03	6.26E-03	-2.16E-06	5.17E-10	1.89E-05	-6.47E-07
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	9.73E-04	9.72E-04	8.29E-07	3.82E-07	2.25E-10	3.95E-06	6.26E-08
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	5.49E-02	5.49E-02	3.54E-05	5.62E-06	1.51E-09	4.50E-05	8.25E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GWP-total = Global warming potential, total;
 GWP-fossil = Global warming potential, fossil;
 GWP-biogenic = Global warming potential, biogenic;
 GWP-luluc = Global warming potential, land use and land use change;

ODP = Depletion potential of the stratospheric ozone layer;
 AP = Acidification potential, accumulated exceedance; and
 EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			EP-marine	EP-terrestrial	POCP	ADP-mineral & metals	ADP-fossil	WDP	PM
			kg N eq	mol N eq	kg NMVOC eq	kg Sb eq	MJ, net calorific value	m ³ world eq deprived	disease incidence
Product stage	Raw material supply	A1	5.05E-03	5.47E-02	1.70E-02	1.05E-03	4.08E+01	2.29E+00	2.20E-07
	Transport	A2	7.84E-04	8.70E-03	2.27E-03	2.30E-07	1.64E+00	4.81E-03	5.44E-09
	Manufacturing	A3	1.16E-03	1.15E-02	2.95E-03	4.76E-05	9.79E+00	2.19E-01	6.78E-08
	Total (Consumption grid)	A1-3	6.99E-03	7.49E-02	2.22E-02	1.09E-03	5.22E+01	2.51E+00	2.94E-07
Construction process stage	Transport	A4	1.64E-05	1.79E-04	5.47E-05	4.65E-08	2.02E-01	9.10E-04	1.15E-09
	Construction	A5	8.78E-06	1.07E-04	3.84E-05	-5.03E-09	-3.12E-02	-2.72E-03	1.28E-09
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.19E-06	1.30E-05	3.98E-06	3.38E-09	1.47E-02	6.62E-05	8.39E-11
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	1.00E-03	1.63E-04	5.82E-05	1.74E-08	1.20E-01	5.30E-03	8.49E-10
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment;
 EP-terrestrial = Eutrophication potential, accumulated exceedance;
 POCP = Formation potential of tropospheric ozone;
 ADP-mineral&metals = Abiotic depletion potential for non-fossil resources;

ADP-fossil = Depletion potential of the stratospheric ozone layer;
 WDP = Water (user) deprivation potential, deprivation-weighted water consumption; and
 PM = Particulate matter.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			IRP	ETP-fw	HTP-c	HTP-nc	SQP
			kBq U ²³⁵ eq	CTUe	CTUh	CTUh	dimensionless
Product stage	Raw material supply	A1	3.96E-01	4.06E+02	1.07E-08	3.89E-07	1.89E+01
	Transport	A2	7.68E-03	1.08E+00	6.75E-11	8.36E-10	4.65E-01
	Manufacturing	A3	2.57E-02	2.77E+01	2.49E-10	1.02E-08	5.83E+00
	Total (Consumption grid)	A1-3	4.29E-01	4.34E+02	1.10E-08	4.00E-07	2.51E+01
Construction process stage	Transport	A4	1.04E-03	1.58E-01	5.11E-12	1.66E-10	1.39E-01
	Construction	A5	-1.35E-04	5.31E-01	-3.10E-12	-9.42E-13	-8.05E-02
Use stage	Use	B1	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND
100% - Landfill							
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	7.56E-05	1.15E-02	3.72E-13	1.20E-11	1.01E-02
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	5.83E-04	2.50E-01	4.01E-12	1.06E-10	2.78E-01
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IRP = Potential human exposure efficiency relative to U235;
 ETP-fw = Potential comparative toxic unit for ecosystems;
 HTP-c = Potential comparative toxic unit for humans;

HTP-nc = Potential comparative toxic unit for humans; and
 SQP = Potential soil quality index.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

			Parameters describing resource use, primary energy					
			PERE	PERM	PERT	PENRE	PENRM	PENRT
			MJ	MJ	MJ	MJ	MJ	MJ
Product stage	Raw material supply	A1	5.69E+00	1.65E-03	5.69E+00	3.88E+01	1.31E+00	4.01E+01
	Transport	A2	1.43E-02	0.00E+00	1.43E-02	1.61E+00	0.00E+00	1.61E+00
	Manufacturing	A3	2.81E+00	1.20E+00	4.01E+00	3.31E+01	7.86E-01	3.39E+01
	Total (Consumption grid)	A1-3	8.52E+00	1.20E+00	9.72E+00	7.34E+01	2.10E+00	7.55E+01
Construction process stage	Transport	A4	2.85E-03	0.00E+00	2.85E-03	1.99E-01	0.00E+00	1.99E-01
	Construction	A5	-2.75E+00	2.75E+00	0.00E+00	-1.90E+00	1.91E+00	8.82E-03
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	2.07E-04	0.00E+00	2.07E-04	1.44E-02	0.00E+00	1.44E-02
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	2.45E-03	0.00E+00	2.45E-03	-1.43E+01	1.44E+01	1.18E-01
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
 PERM = Use of renewable primary energy resources used as raw materials;
 PERT = Total use of renewable primary energy resources;

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials;
 PENRM = Use of non-renewable primary energy resources used as raw materials;
 PENRT = Total use of non-renewable primary energy resource

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing resource use, secondary materials and fuels, use of water			SM	RSF	NRSF	FW
			kg	MJ net calorific value	MJ net calorific value	m ³
Product stage	Raw material supply	A1	1.70E-03	0.00E+00	0.00E+00	5.55E-02
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	1.19E-04
	Manufacturing	A3	4.23E-04	0.00E+00	0.00E+00	5.82E-03
	Total (Consumption grid)	A1-3	2.13E-03	0.00E+00	0.00E+00	6.14E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	2.25E-05
	Construction	A5	1.95E-01	0.00E+00	0.00E+00	-6.45E-05
Use stage	Use	B1	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND
100% - Landfill						
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	1.64E-06
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	4.13E-05	0.00E+00	0.00E+00	1.25E-04
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00

SM = Use of secondary material;
RSF = Use of renewable secondary fuels;

NRSF = Use of non-renewable secondary fuels;
FW = Net use of fresh water

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing waste categories			HWD	NHWD	RWD
			kg	kg	kg
Product stage	Raw material supply	A1	4.64E-01	1.30E+01	1.37E-04
	Transport	A2	2.09E-03	2.17E-02	1.13E-05
	Manufacturing	A3	4.64E-01	3.24E+00	2.34E-05
	Total (Consumption grid)	A1-3	9.30E-01	1.63E+01	1.71E-04
Construction process stage	Transport	A4	2.23E-04	3.96E-03	1.37E-06
	Construction	A5	1.84E-05	2.77E-04	5.77E-08
Use stage	Use	B1	MND	MND	MND
	Maintenance	B2	MND	MND	MND
	Repair	B3	MND	MND	MND
	Replacement	B4	MND	MND	MND
	Refurbishment	B5	MND	MND	MND
	Operational energy use	B6	MND	MND	MND
	Operational water use	B7	MND	MND	MND
100% - Landfill					
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.62E-05	2.88E-04	9.95E-08
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	2.52E-04	4.73E-01	7.02E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00

HWD = Hazardous waste disposed;
 NHWD = Non-hazardous waste disposed;
 RWD = Radioactive waste disposed

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing output flows – at end of life								
			CRU	MFR	MER	EE	Biogenic carbon (product)	Biogenic carbon (packaging)
			kg	kg	kg	MJ per energy carrier	kg C	kg C
Product stage	Raw material supply	A1	0.00E+00	8.43E-06	1.27E-07	7.02E-03	-5.38E-05	0.00E+00
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Manufacturing	A3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.04E-04	-3.80E-02
	Total (Consumption grid)	A1-3	0.00E+00	8.43E-06	1.27E-07	7.02E-03	-4.57E-04	-3.80E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.76E-02
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU = Components for reuse;
MFR = Materials for recycling

MER = Materials for energy recovery;
EE = Exported Energy

LCA Results - Cat6A STP Screened Angled Keystone Jack Toolless with the weight of 0.782 per unit.

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP	EP-freshwater
			kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CFC11 eq	mol H ⁺ eq	kg (PO ₄) ³⁻ eq
Product stage	Raw material supply	A1	4.69E+00	4.60E+00	7.71E-02	1.03E-02	2.38E-07	5.06E-02	4.59E-03
	Transport	A2	2.03E-01	2.03E-01	2.11E-05	1.33E-04	4.19E-08	5.27E-03	8.14E-06
	Manufacturing	A3	1.90E+00	1.96E+00	-5.75E-02	1.07E-03	2.48E-08	1.03E-02	4.27E-04
	Total (Consumption grid)	A1-3	6.80E+00	6.77E+00	1.96E-02	1.15E-02	3.05E-07	6.61E-02	5.02E-03
Construction process stage	Transport	A4	2.24E-02	2.24E-02	1.91E-05	8.78E-06	5.18E-09	9.08E-05	1.44E-06
	Construction	A5	1.51E-02	9.73E-03	5.11E-03	6.72E-06	1.39E-09	5.40E-05	1.27E-06
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.63E-03	1.63E-03	1.39E-06	6.38E-07	3.76E-10	6.60E-06	1.05E-07
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	9.18E-02	9.17E-02	5.92E-05	9.39E-06	2.52E-09	7.52E-05	1.38E-06
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GWP-total = Global warming potential, total;
 GWP-fossil = Global warming potential, fossil;
 GWP-biogenic = Global warming potential, biogenic;
 GWP-luluc = Global warming potential, land use and land use change;

ODP = Depletion potential of the stratospheric ozone layer;
 AP = Acidification potential, accumulated exceedance; and
 EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			EP-marine	EP-terrestrial	POCP	ADP-mineral & metals	ADP-fossil	WDP	PM
			kg N eq	mol N eq	kg NMVOC eq	kg Sb eq	MJ, net calorific value	m ³ world eq deprived	disease incidence
Product stage	Raw material supply	A1	7.56E-03	8.21E-02	2.46E-02	1.60E-03	5.87E+01	3.44E+00	3.21E-07
	Transport	A2	1.31E-03	1.45E-02	3.79E-03	3.77E-07	2.71E+00	7.90E-03	8.91E-09
	Manufacturing	A3	2.38E-03	2.41E-02	6.14E-03	4.85E-05	1.79E+01	2.79E-01	1.46E-07
	Total (Consumption grid)	A1-3	1.12E-02	1.21E-01	3.45E-02	1.65E-03	7.94E+01	3.73E+00	4.77E-07
Construction process stage	Transport	A4	2.73E-05	2.99E-04	9.15E-05	7.78E-08	3.38E-01	1.52E-03	1.93E-09
	Construction	A5	2.21E-05	2.05E-04	6.98E-05	6.41E-08	1.09E-01	9.28E-04	1.85E-09
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.99E-06	2.17E-05	6.65E-06	5.65E-09	2.46E-02	1.11E-04	1.40E-10
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	1.67E-03	2.72E-04	9.73E-05	2.91E-08	2.00E-01	8.85E-03	1.42E-09
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment;
 EP-terrestrial = Eutrophication potential, accumulated exceedance;
 POCP = Formation potential of tropospheric ozone;
 ADP-mineral&metals = Abiotic depletion potential for non-fossil resources;

ADP-fossil = Depletion potential of the stratospheric ozone layer;
 WDP = Water (user) deprivation potential, deprivation-weighted water consumption; and
 PM = Particulate matter.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			IRP	ETP-fw	HTP-c	HTP-nc	SQP
			kBq U ²³⁵ eq	CTUe	CTUh	CTUh	dimensionless
Product stage	Raw material supply	A1	5.86E-01	6.28E+02	1.63E-08	5.95E-07	2.71E+01
	Transport	A2	1.27E-02	1.78E+00	1.12E-10	1.37E-09	7.56E-01
	Manufacturing	A3	4.38E-02	5.46E+01	4.72E-10	2.06E-08	9.35E+00
	Total (Consumption grid)	A1-3	6.43E-01	6.84E+02	1.68E-08	6.17E-07	3.72E+01
Construction process stage	Transport	A4	1.74E-03	2.64E-01	8.55E-12	2.77E-10	2.32E-01
	Construction	A5	6.15E-04	5.70E-01	1.40E-11	1.45E-10	3.90E-02
Use stage	Use	B1	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND
100% - Landfill							
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.26E-04	1.92E-02	6.21E-13	2.01E-11	1.69E-02
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	9.75E-04	4.18E-01	6.70E-12	1.77E-10	4.65E-01
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IRP = Potential human exposure efficiency relative to U235;
 ETP-fw = Potential comparative toxic unit for ecosystems;
 HTP-c = Potential comparative toxic unit for humans;

HTP-nc = Potential comparative toxic unit for humans; and
 SQP = Potential soil quality index.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

			Parameters describing resource use, primary energy					
			PERE	PERM	PERT	PENRE	PENRM	PENRT
			MJ	MJ	MJ	MJ	MJ	MJ
Product stage	Raw material supply	A1	8.36E+00	3.27E-03	8.36E+00	5.61E+01	2.09E+00	5.82E+01
	Transport	A2	2.35E-02	0.00E+00	2.35E-02	2.66E+00	0.00E+00	2.66E+00
	Manufacturing	A3	6.94E+00	1.63E+00	8.57E+00	7.50E+01	1.82E-01	7.52E+01
	Total (Consumption grid)	A1-3	1.53E+01	1.63E+00	1.69E+01	1.34E+02	2.27E+00	1.36E+02
Construction process stage	Transport	A4	4.76E-03	0.00E+00	4.76E-03	3.32E-01	0.00E+00	3.32E-01
	Construction	A5	-2.26E+00	2.26E+00	0.00E+00	7.24E-03	0.00E+00	7.24E-03
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	3.46E-04	0.00E+00	3.46E-04	2.41E-02	0.00E+00	2.41E-02
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	4.10E-03	0.00E+00	4.10E-03	-2.39E+01	2.41E+01	1.97E-01
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
 PERM = Use of renewable primary energy resources used as raw materials;
 PERT = Total use of renewable primary energy resources;

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials;
 PENRM = Use of non-renewable primary energy resources used as raw materials;
 PENRT = Total use of non-renewable primary energy resource

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing resource use, secondary materials and fuels, use of water						
			SM	RSF	NRSF	FW
			kg	MJ net calorific value	MJ net calorific value	m ³
Product stage	Raw material supply	A1	1.90E-03	0.00E+00	0.00E+00	8.32E-02
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	1.96E-04
	Manufacturing	A3	3.82E-04	0.00E+00	0.00E+00	8.16E-03
	Total (Consumption grid)	A1-3	2.29E-03	0.00E+00	0.00E+00	9.16E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	3.77E-05
	Construction	A5	1.60E-01	0.00E+00	0.00E+00	2.33E-05
Use stage	Use	B1	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND
100% - Landfill						
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	2.74E-06
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	6.91E-05	0.00E+00	0.00E+00	2.08E-04
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00

SM = Use of secondary material;
RSF = Use of renewable secondary fuels;

NRSF = Use of non-renewable secondary fuels;
FW = Net use of fresh water

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

			Other environmental information describing waste categories		
			HWD	NHWD	RWD
			kg	kg	kg
Product stage	Raw material supply	A1	6.67E-01	1.77E+01	2.03E-04
	Transport	A2	3.46E-03	3.56E-02	1.87E-05
	Manufacturing	A3	1.09E+00	7.25E+00	4.84E-05
	Total (Consumption grid)	A1-3	1.76E+00	2.50E+01	2.70E-04
Construction process stage	Transport	A4	3.73E-04	6.62E-03	2.29E-06
	Construction	A5	1.51E-05	2.27E-04	4.74E-08
Use stage	Use	B1	MND	MND	MND
	Maintenance	B2	MND	MND	MND
	Repair	B3	MND	MND	MND
	Replacement	B4	MND	MND	MND
	Refurbishment	B5	MND	MND	MND
	Operational energy use	B6	MND	MND	MND
	Operational water use	B7	MND	MND	MND
100% - Landfill					
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	2.71E-05	4.81E-04	1.66E-07
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	4.21E-04	7.90E-01	1.17E-06
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00

HWD = Hazardous waste disposed;
 NHWD = Non-hazardous waste disposed;
 RWD = Radioactive waste disposed

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing output flows – at end of life								
			CRU	MFR	MER	EE	Biogenic carbon (product)	Biogenic carbon (packaging)
			kg	kg	kg	MJ per energy carrier	kg C	kg C
Product stage	Raw material supply	A1	0.00E+00	1.01E-05	1.29E-07	1.07E-02	-1.07E-04	0.00E+00
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Manufacturing	A3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.48E-03	-5.20E-02
	Total (Consumption grid)	A1-3	0.00E+00	1.01E-05	1.29E-07	1.07E-02	-1.59E-03	-5.20E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-02
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU = Components for reuse;
MFR = Materials for recycling

MER = Materials for energy recovery;
EE = Exported Energy

LCA Results - FTP Screened 6 Port ExpressNet Module with the weight of 0.305 per unit.

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP	EP-freshwater
			kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CFC11 eq	mol H ⁺ eq	kg (PO ₄) ³⁻ eq
Product stage	Raw material supply	A1	2.02E+00	1.99E+00	3.00E-02	4.29E-03	1.06E-07	1.59E-02	1.51E-03
	Transport	A2	7.93E-02	7.92E-02	8.23E-06	5.17E-05	1.63E-08	2.06E-03	3.17E-06
	Manufacturing	A3	3.34E-01	3.53E-01	-1.95E-02	3.51E-04	6.15E-09	1.83E-03	7.69E-05
	Total (Consumption grid)	A1-3	2.44E+00	2.42E+00	1.06E-02	4.69E-03	1.29E-07	1.98E-02	1.59E-03
Construction process stage	Transport	A4	8.73E-03	8.72E-03	7.43E-06	3.42E-06	2.02E-09	3.54E-05	5.62E-07
	Construction	A5	3.22E-02	2.07E-02	1.09E-02	1.43E-05	2.96E-09	1.15E-04	2.70E-06
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	6.34E-04	6.34E-04	5.40E-07	2.49E-07	1.47E-10	2.57E-06	4.08E-08
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	3.58E-02	3.58E-02	2.31E-05	3.66E-06	9.83E-10	2.93E-05	5.37E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GWP-total = Global warming potential, total;
 GWP-fossil = Global warming potential, fossil;
 GWP-biogenic = Global warming potential, biogenic;
 GWP-luluc = Global warming potential, land use and land use change;

ODP = Depletion potential of the stratospheric ozone layer;
 AP = Acidification potential, accumulated exceedance; and
 EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			EP-marine	EP-terrestrial	POCP	ADP-mineral & metals	ADP-fossil	WDP	PM
			kg N eq	mol N eq	kg NMVOC eq	kg Sb eq	MJ, net calorific value	m ³ world eq deprived	disease incidence
Product stage	Raw material supply	A1	2.96E-03	3.12E-02	9.83E-03	4.99E-04	2.52E+01	1.31E+00	1.30E-07
	Transport	A2	5.10E-04	5.66E-03	1.48E-03	1.47E-07	1.06E+00	3.08E-03	3.47E-09
	Manufacturing	A3	4.41E-04	4.31E-03	1.10E-03	2.41E-06	3.30E+00	5.31E-02	2.66E-08
	Total (Consumption grid)	A1-3	3.91E-03	4.11E-02	1.24E-02	5.01E-04	2.96E+01	1.37E+00	1.60E-07
Construction process stage	Transport	A4	1.07E-05	1.16E-04	3.57E-05	3.03E-08	1.32E-01	5.93E-04	7.52E-10
	Construction	A5	4.69E-05	4.35E-04	1.48E-04	1.36E-07	2.32E-01	1.97E-03	3.92E-09
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	7.75E-07	8.46E-06	2.59E-06	2.20E-09	9.58E-03	4.31E-05	5.47E-11
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	6.52E-04	1.06E-04	3.79E-05	1.14E-08	7.80E-02	3.45E-03	5.53E-10
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment;
 EP-terrestrial = Eutrophication potential, accumulated exceedance;
 POCP = Formation potential of tropospheric ozone;
 ADP-mineral&metals = Abiotic depletion potential for non-fossil resources;

ADP-fossil = Depletion potential of the stratospheric ozone layer;
 WDP = Water (user) deprivation potential, deprivation-weighted water consumption; and
 PM = Particulate matter.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			IRP	ETP-fw	HTP-c	HTP-nc	SQP
			kBq U ²³⁵ eq	CTUe	CTUh	CTUh	dimensionless
Product stage	Raw material supply	A1	2.46E-01	2.09E+02	7.58E-09	1.63E-07	1.04E+01
	Transport	A2	4.94E-03	6.93E-01	4.37E-11	5.35E-10	2.94E-01
	Manufacturing	A3	9.13E-03	9.05E+00	9.19E-11	3.67E-09	2.57E+00
	Total (Consumption grid)	A1-3	2.60E-01	2.19E+02	7.72E-09	1.68E-07	1.33E+01
Construction process stage	Transport	A4	6.78E-04	1.03E-01	3.33E-12	1.08E-10	9.06E-02
	Construction	A5	1.31E-03	1.21E+00	2.97E-11	3.09E-10	8.28E-02
Use stage	Use	B1	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND
100% - Landfill							
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	4.92E-05	7.48E-03	2.42E-13	7.84E-12	6.58E-03
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	3.80E-04	1.63E-01	2.61E-12	6.91E-11	1.81E-01
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IRP = Potential human exposure efficiency relative to U235;
 ETP-fw = Potential comparative toxic unit for ecosystems;
 HTP-c = Potential comparative toxic unit for humans;

HTP-nc = Potential comparative toxic unit for humans; and
 SQP = Potential soil quality index.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

			Parameters describing resource use, primary energy					
			PERE	PERM	PERT	PENRE	PENRM	PENRT
			MJ	MJ	MJ	MJ	MJ	MJ
Product stage	Raw material supply	A1	2.89E+00	0.00E+00	2.89E+00	2.44E+01	7.77E-01	2.51E+01
	Transport	A2	9.14E-03	0.00E+00	9.14E-03	1.04E+00	0.00E+00	1.04E+00
	Manufacturing	A3	1.24E+00	4.55E-01	1.69E+00	1.30E+01	6.86E-02	1.30E+01
	Total (Consumption grid)	A1-3	4.14E+00	4.55E-01	4.60E+00	3.84E+01	8.45E-01	3.92E+01
Construction process stage	Transport	A4	1.86E-03	0.00E+00	1.86E-03	1.29E-01	0.00E+00	1.29E-01
	Construction	A5	-4.80E+00	4.80E+00	0.00E+00	1.54E-02	0.00E+00	1.54E-02
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.35E-04	0.00E+00	1.35E-04	9.41E-03	0.00E+00	9.41E-03
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	1.60E-03	0.00E+00	1.60E-03	-9.31E+00	9.39E+00	7.67E-02
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
 PERM = Use of renewable primary energy resources used as raw materials;
 PERT = Total use of renewable primary energy resources;

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials;
 PENRM = Use of non-renewable primary energy resources used as raw materials;
 PENRT = Total use of non-renewable primary energy resource

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing resource use, secondary materials and fuels, use of water			SM	RSF	NRSF	FW
			kg	MJ net calorific value	MJ net calorific value	m ³
Product stage	Raw material supply	A1	1.12E-02	0.00E+00	0.00E+00	3.19E-02
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	7.62E-05
	Manufacturing	A3	3.46E-04	0.00E+00	0.00E+00	1.53E-03
	Total (Consumption grid)	A1-3	1.15E-02	0.00E+00	0.00E+00	3.35E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	1.47E-05
	Construction	A5	3.40E-01	0.00E+00	0.00E+00	4.96E-05
Use stage	Use	B1	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND
100% - Landfill						
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	1.07E-06
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	2.69E-05	0.00E+00	0.00E+00	8.12E-05
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00

SM = Use of secondary material;
RSF = Use of renewable secondary fuels;

NRSF = Use of non-renewable secondary fuels;
FW = Net use of fresh water

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing waste categories			HWD	NHWD	RWD
			kg	kg	kg
Product stage	Raw material supply	A1	3.50E-01	6.36E+00	8.07E-05
	Transport	A2	1.35E-03	1.39E-02	7.28E-06
	Manufacturing	A3	1.88E-01	1.25E+00	8.85E-06
	Total (Consumption grid)	A1-3	5.39E-01	7.63E+00	9.68E-05
Construction process stage	Transport	A4	1.45E-04	2.58E-03	8.92E-07
	Construction	A5	3.21E-05	4.83E-04	1.01E-07
Use stage	Use	B1	MND	MND	MND
	Maintenance	B2	MND	MND	MND
	Repair	B3	MND	MND	MND
	Replacement	B4	MND	MND	MND
	Refurbishment	B5	MND	MND	MND
	Operational energy use	B6	MND	MND	MND
	Operational water use	B7	MND	MND	MND
100% - Landfill					
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.06E-05	1.88E-04	6.48E-08
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	1.64E-04	3.08E-01	4.58E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00

HWD = Hazardous waste disposed;
 NHWD = Non-hazardous waste disposed;
 RWD = Radioactive waste disposed

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing output flows – at end of life								
			CRU	MFR	MER	EE	Biogenic carbon (product)	Biogenic carbon (packaging)
			kg	kg	kg	MJ per energy carrier	kg C	kg C
Product stage	Raw material supply	A1	0.00E+00	1.42E-06	2.77E-10	3.54E-03	0.00E+00	0.00E+00
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Manufacturing	A3	0.00E+00	9.70E-04	0.00E+00	0.00E+00	-1.35E-03	-1.46E-02
	Total (Consumption grid)	A1-3	0.00E+00	9.71E-04	2.77E-10	3.54E-03	-1.35E-03	-1.46E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-01
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU = Components for reuse;
MFR = Materials for recycling

MER = Materials for energy recovery;
EE = Exported Energy

LCA Results - FCat6 6 Port Unscreened ExpressNet Module with the weight of 0.079 per unit.

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP	EP-freshwater
			kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CFC11 eq	mol H ⁺ eq	kg (PO ₄) ³⁻ eq
Product stage	Raw material supply	A1	1.22E+00	1.22E+00	3.34E-03	1.17E-03	4.06E-08	7.44E-03	5.17E-04
	Transport	A2	2.55E-01	2.55E-01	2.27E-05	1.67E-04	5.24E-08	6.72E-03	1.01E-05
	Manufacturing	A3	7.15E-01	7.34E-01	-2.05E-02	3.80E-04	8.98E-09	3.78E-03	1.46E-04
	Total (Consumption grid)	A1-3	2.19E+00	2.21E+00	-1.71E-02	1.72E-03	1.02E-07	1.79E-02	6.74E-04
Construction process stage	Transport	A4	2.26E-03	2.26E-03	1.93E-06	8.87E-07	5.23E-10	9.17E-06	1.45E-07
	Construction	A5	3.95E-02	2.54E-02	1.33E-02	1.75E-05	3.63E-09	1.41E-04	3.31E-06
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.64E-04	1.64E-04	1.40E-07	6.44E-08	3.80E-11	6.66E-07	1.06E-08
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	9.27E-03	9.26E-03	5.98E-06	9.49E-07	2.55E-10	7.59E-06	1.39E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GWP-total = Global warming potential, total;
 GWP-fossil = Global warming potential, fossil;
 GWP-biogenic = Global warming potential, biogenic;
 GWP-luluc = Global warming potential, land use and land use change;

ODP = Depletion potential of the stratospheric ozone layer;
 AP = Acidification potential, accumulated exceedance; and
 EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			EP-marine	EP-terrestrial	POCP	ADP-mineral & metals	ADP-fossil	WDP	PM
			kg N eq	mol N eq	kg NMVOC eq	kg Sb eq	MJ, net calorific value	m ³ world eq deprived	disease incidence
Product stage	Raw material supply	A1	1.11E-03	1.19E-02	4.68E-03	1.13E-04	1.48E+01	4.48E-01	9.65E-08
	Transport	A2	1.67E-03	1.85E-02	4.82E-03	4.65E-07	3.39E+00	9.75E-03	1.10E-08
	Manufacturing	A3	8.64E-04	8.77E-03	2.26E-03	2.83E-06	6.73E+00	8.05E-02	5.40E-08
	Total (Consumption grid)	A1-3	3.64E-03	3.92E-02	1.18E-02	1.17E-04	2.50E+01	5.39E-01	1.61E-07
Construction process stage	Transport	A4	2.76E-06	3.02E-05	9.24E-06	7.85E-09	3.41E-02	1.54E-04	1.95E-10
	Construction	A5	5.75E-05	5.34E-04	1.82E-04	1.67E-07	2.84E-01	2.42E-03	4.81E-09
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	2.01E-07	2.19E-06	6.71E-07	5.71E-10	2.48E-03	1.12E-05	1.42E-11
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	1.69E-04	2.74E-05	9.82E-06	2.94E-09	2.02E-02	8.94E-04	1.43E-10
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment;
 EP-terrestrial = Eutrophication potential, accumulated exceedance;
 POCP = Formation potential of tropospheric ozone;
 ADP-mineral&metals = Abiotic depletion potential for non-fossil resources;

ADP-fossil = Depletion potential of the stratospheric ozone layer;
 WDP = Water (user) deprivation potential, deprivation-weighted water consumption; and
 PM = Particulate matter.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			IRP	ETP-fw	HTP-c	HTP-nc	SQP
			kBq U ²³⁵ eq	CTUe	CTUh	CTUh	dimensionless
Product stage	Raw material supply	A1	6.98E-02	5.58E+01	1.38E-09	5.06E-08	3.84E+00
	Transport	A2	1.58E-02	2.21E+00	1.41E-10	1.69E-09	9.13E-01
	Manufacturing	A3	1.61E-02	1.85E+01	1.74E-10	7.37E-09	3.23E+00
	Total (Consumption grid)	A1-3	1.02E-01	7.65E+01	1.69E-09	5.96E-08	7.98E+00
Construction process stage	Transport	A4	1.76E-04	2.66E-02	8.63E-13	2.79E-11	2.35E-02
	Construction	A5	1.60E-03	1.49E+00	3.64E-11	3.79E-10	1.02E-01
Use stage	Use	B1	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND
100% - Landfill							
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.28E-05	1.94E-03	6.27E-14	2.03E-12	1.70E-03
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	9.84E-05	4.22E-02	6.77E-13	1.79E-11	4.69E-02
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IRP = Potential human exposure efficiency relative to U235;
 ETP-fw = Potential comparative toxic unit for ecosystems;
 HTP-c = Potential comparative toxic unit for humans;

HTP-nc = Potential comparative toxic unit for humans; and
 SQP = Potential soil quality index.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

			Parameters describing resource use, primary energy					
			PERE	PERM	PERT	PENRE	PENRM	PENRT
			MJ	MJ	MJ	MJ	MJ	MJ
Product stage	Raw material supply	A1	9.93E-01	0.00E+00	9.93E-01	1.28E+01	2.11E+00	1.49E+01
	Transport	A2	2.89E-02	0.00E+00	2.89E-02	3.32E+00	0.00E+00	3.32E+00
	Manufacturing	A3	2.66E+00	4.93E-01	3.16E+00	2.78E+01	2.81E-01	2.81E+01
	Total (Consumption grid)	A1-3	3.69E+00	4.93E-01	4.18E+00	4.39E+01	2.39E+00	4.63E+01
Construction process stage	Transport	A4	4.81E-04	0.00E+00	4.81E-04	3.35E-02	0.00E+00	3.35E-02
	Construction	A5	-5.88E+00	5.88E+00	0.00E+00	1.89E-02	0.00E+00	1.89E-02
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	3.50E-05	0.00E+00	3.50E-05	2.44E-03	0.00E+00	2.44E-03
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	4.14E-04	0.00E+00	4.14E-04	-2.41E+00	2.43E+00	1.99E-02
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
 PERM = Use of renewable primary energy resources used as raw materials;
 PERT = Total use of renewable primary energy resources;

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials;
 PENRM = Use of non-renewable primary energy resources used as raw materials;
 PENRT = Total use of non-renewable primary energy resource

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing resource use, secondary materials and fuels, use of water						
			SM	RSF	NRSF	FW
			kg	MJ net calorific value	MJ net calorific value	m ³
Product stage	Raw material supply	A1	4.53E-04	0.00E+00	0.00E+00	1.10E-02
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	2.41E-04
	Manufacturing	A3	2.22E-04	0.00E+00	0.00E+00	2.49E-03
	Total (Consumption grid)	A1-3	6.75E-04	0.00E+00	0.00E+00	1.37E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	3.81E-06
	Construction	A5	4.17E-01	0.00E+00	0.00E+00	6.09E-05
Use stage	Use	B1	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND
100% - Landfill						
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	2.77E-07
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	6.98E-06	0.00E+00	0.00E+00	2.10E-05
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00

SM = Use of secondary material;
RSF = Use of renewable secondary fuels;

NRSF = Use of non-renewable secondary fuels;
FW = Net use of fresh water

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing waste categories			HWD	NHWD	RWD
			kg	kg	kg
Product stage	Raw material supply	A1	1.02E-01	2.99E+00	2.31E-05
	Transport	A2	4.33E-03	4.41E-02	2.34E-05
	Manufacturing	A3	4.10E-01	2.66E+00	1.78E-05
	Total (Consumption grid)	A1-3	5.17E-01	5.69E+00	6.43E-05
Construction process stage	Transport	A4	3.76E-05	6.69E-04	2.31E-07
	Construction	A5	3.94E-05	5.92E-04	1.23E-07
Use stage	Use	B1	MND	MND	MND
	Maintenance	B2	MND	MND	MND
	Repair	B3	MND	MND	MND
	Replacement	B4	MND	MND	MND
	Refurbishment	B5	MND	MND	MND
	Operational energy use	B6	MND	MND	MND
	Operational water use	B7	MND	MND	MND
100% - Landfill					
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	2.74E-06	4.86E-05	1.68E-08
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	4.25E-05	7.98E-02	1.19E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00

HWD = Hazardous waste disposed;
 NHWD = Non-hazardous waste disposed;
 RWD = Radioactive waste disposed

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing output flows – at end of life								
			CRU	MFR	MER	EE	Biogenic carbon (product)	Biogenic carbon (packaging)
			kg	kg	kg	MJ per energy carrier	kg C	kg C
Product stage	Raw material supply	A1	0.00E+00	3.91E-06	6.57E-10	9.77E-03	0.00E+00	0.00E+00
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Manufacturing	A3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-7.40E-04	-1.66E-02
	Total (Consumption grid)	A1-3	0.00E+00	3.91E-06	6.57E-10	9.77E-03	-7.40E-04	-1.66E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-01
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU = Components for reuse;
MFR = Materials for recycling

MER = Materials for energy recovery;
EE = Exported Energy

LCA Results - Screened Field Termination RJ45 Plug with the weight of 0.0183 per unit.

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP	EP-freshwater
			kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CO ₂ eq	kg CFC11 eq	mol H ⁺ eq	kg (PO ₄) ³⁻ eq
Product stage	Raw material supply	A1	1.86E-01	1.86E-01	4.26E-04	8.04E-05	2.78E-09	9.10E-04	3.73E-05
	Transport	A2	4.83E-03	4.82E-03	5.52E-07	3.13E-06	9.95E-10	1.24E-04	1.95E-07
	Manufacturing	A3	8.11E-02	8.67E-02	-5.79E-03	1.06E-04	1.64E-09	4.46E-04	2.06E-05
	Total (Consumption grid)	A1-3	2.72E-01	2.77E-01	-5.37E-03	1.90E-04	5.41E-09	1.48E-03	5.81E-05
Construction process stage	Transport	A4	5.24E-04	5.23E-04	4.46E-07	2.05E-07	1.21E-10	2.12E-06	3.37E-08
	Construction	A5	1.03E-01	8.88E-02	1.32E-02	5.67E-05	8.09E-09	3.19E-04	1.16E-05
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	3.81E-05	3.80E-05	3.24E-08	1.49E-08	8.80E-12	1.54E-07	2.45E-09
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	2.15E-03	2.15E-03	1.39E-06	2.20E-07	5.90E-11	1.76E-06	3.22E-08
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GWP-total = Global warming potential, total;
 GWP-fossil = Global warming potential, fossil;
 GWP-biogenic = Global warming potential, biogenic;
 GWP-luluc = Global warming potential, land use and land use change;

ODP = Depletion potential of the stratospheric ozone layer;
 AP = Acidification potential, accumulated exceedance; and
 EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			EP-marine	EP-terrestrial	POCP	ADP-mineral & metals	ADP-fossil	WDP	PM
			kg N eq	mol N eq	kg NMVOC eq	kg Sb eq	MJ, net calorific value	m ³ world eq deprived	disease incidence
Product stage	Raw material supply	A1	1.33E-04	1.43E-03	5.35E-04	8.97E-06	2.19E+00	6.69E-02	1.66E-08
	Transport	A2	3.07E-05	3.41E-04	8.89E-05	9.06E-09	6.44E-02	1.89E-04	2.14E-10
	Manufacturing	A3	1.05E-04	1.04E-03	2.79E-04	2.09E-06	9.92E-01	2.26E-02	6.43E-09
	Total (Consumption grid)	A1-3	2.68E-04	2.82E-03	9.03E-04	1.11E-05	3.24E+00	8.97E-02	2.33E-08
Construction process stage	Transport	A4	6.40E-07	6.99E-06	2.14E-06	1.82E-09	7.91E-03	3.56E-05	4.51E-11
	Construction	A5	1.26E-04	1.07E-03	3.59E-04	4.82E-07	9.06E-01	1.70E-02	8.49E-09
Use stage	Use	B1	MND	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND	MND
100% - Landfill									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	4.65E-08	5.08E-07	1.56E-07	1.32E-10	5.75E-04	2.59E-06	3.28E-12
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	3.91E-05	6.36E-06	2.28E-06	6.82E-10	4.68E-03	2.07E-04	3.32E-11
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment;
 EP-terrestrial = Eutrophication potential, accumulated exceedance;
 POCP = Formation potential of tropospheric ozone;
 ADP-mineral&metals = Abiotic depletion potential for non-fossil resources;

ADP-fossil = Depletion potential of the stratospheric ozone layer;
 WDP = Water (user) deprivation potential, deprivation-weighted water consumption; and
 PM = Particulate matter.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			IRP	ETP-fw	HTP-c	HTP-nc	SQP
			kBq U ²³⁵ eq	CTUe	CTUh	CTUh	dimensionless
Product stage	Raw material supply	A1	4.93E-03	5.97E+00	2.19E-10	6.24E-09	2.78E-01
	Transport	A2	3.02E-04	4.24E-02	2.65E-12	3.29E-11	1.84E-02
	Manufacturing	A3	2.97E-03	2.29E+00	2.50E-11	9.29E-10	7.14E-01
	Total (Consumption grid)	A1-3	8.19E-03	8.31E+00	2.47E-10	7.20E-09	1.01E+00
Construction process stage	Transport	A4	4.07E-05	6.17E-03	2.00E-13	6.47E-12	4.07E-05
	Construction	A5	4.95E-03	2.11E+00	1.13E-10	1.05E-09	4.95E-03
Use stage	Use	B1	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND
100% - Landfill							
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	2.95E-06	4.49E-04	1.45E-14	4.70E-13	2.95E-06
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	2.28E-05	9.78E-03	1.57E-13	4.15E-12	2.28E-05
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IRP = Potential human exposure efficiency relative to U235;
 ETP-fw = Potential comparative toxic unit for ecosystems;
 HTP-c = Potential comparative toxic unit for humans;

HTP-nc = Potential comparative toxic unit for humans; and
 SQP = Potential soil quality index.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

			Parameters describing resource use, primary energy					
			PERE	PERM	PERT	PENRE	PENRM	PENRT
			MJ	MJ	MJ	MJ	MJ	MJ
Product stage	Raw material supply	A1	8.31E-02	0.00E+00	8.31E-02	1.69E+00	4.98E-01	2.19E+00
	Transport	A2	5.63E-04	0.00E+00	5.63E-04	6.32E-02	0.00E+00	6.32E-02
	Manufacturing	A3	3.19E-01	9.96E-02	4.18E-01	3.01E+00	1.37E-01	3.14E+00
	Total (Consumption grid)	A1-3	4.02E-01	9.96E-02	5.02E-01	4.76E+00	6.36E-01	5.40E+00
Construction process stage	Transport	A4	1.11E-04	0.00E+00	1.11E-04	7.77E-03	0.00E+00	7.77E-03
	Construction	A5	-5.91E+00	5.91E+00	0.00E+00	-7.20E+00	7.22E+00	1.90E-02
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	8.10E-06	0.00E+00	8.10E-06	5.64E-04	0.00E+00	5.64E-04
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	9.59E-05	0.00E+00	9.59E-05	-5.59E-01	5.63E-01	4.60E-03
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
 PERM = Use of renewable primary energy resources used as raw materials;
 PERT = Total use of renewable primary energy resources;

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials;
 PENRM = Use of non-renewable primary energy resources used as raw materials;
 PENRT = Total use of non-renewable primary energy resource

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing resource use, secondary materials and fuels, use of water						
			SM	RSF	NRSF	FW
			kg	MJ net calorific value	MJ net calorific value	m ³
Product stage	Raw material supply	A1	4.24E-04	0.00E+00	0.00E+00	1.60E-03
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	4.69E-06
	Manufacturing	A3	1.59E-04	0.00E+00	0.00E+00	5.93E-04
	Total (Consumption grid)	A1-3	5.83E-04	0.00E+00	0.00E+00	2.20E-03
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	8.82E-07
	Construction	A5	4.19E-01	0.00E+00	0.00E+00	4.13E-04
Use stage	Use	B1	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND
100% - Landfill						
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	6.41E-08
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	1.62E-06	0.00E+00	0.00E+00	4.87E-06
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00

SM = Use of secondary material;
RSF = Use of renewable secondary fuels;

NRSF = Use of non-renewable secondary fuels;
FW = Net use of fresh water

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing waste categories			HWD	NHWD	RWD
			kg	kg	kg
Product stage	Raw material supply	A1	1.33E-02	2.89E-01	1.89E-06
	Transport	A2	8.20E-05	8.54E-04	4.44E-07
	Manufacturing	A3	4.16E-02	2.92E-01	2.27E-06
	Total (Consumption grid)	A1-3	5.50E-02	5.82E-01	4.61E-06
Construction process stage	Transport	A4	8.72E-06	1.55E-04	5.35E-08
	Construction	A5	3.96E-05	5.95E-04	1.24E-07
Use stage	Use	B1	MND	MND	MND
	Maintenance	B2	MND	MND	MND
	Repair	B3	MND	MND	MND
	Replacement	B4	MND	MND	MND
	Refurbishment	B5	MND	MND	MND
	Operational energy use	B6	MND	MND	MND
	Operational water use	B7	MND	MND	MND
100% - landfill					
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	6.34E-07	1.13E-05	3.89E-09
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	9.85E-06	1.85E-02	2.75E-08
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00

HWD = Hazardous waste disposed;
 NHWD = Non-hazardous waste disposed;
 RWD = Radioactive waste disposed

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing output flows – at end of life								
			CRU	MFR	MER	EE	Biogenic carbon (product)	Biogenic carbon (packaging)
			kg	kg	kg	MJ per energy carrier	kg C	kg C
Product stage	Raw material supply	A1	0.00E+00	1.49E-06	1.30E-08	2.37E-03	0.00E+00	0.00E+00
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Manufacturing	A3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-7.41E-04	-2.71E-03
	Total (Consumption grid)	A1-3	0.00E+00	6.19E-05	1.30E-08	2.37E-03	-7.41E-04	-2.71E-03
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-01
Use stage	Use	B1	MND	MND	MND	MND	MND	MND
	Maintenance	B2	MND	MND	MND	MND	MND	MND
	Repair	B3	MND	MND	MND	MND	MND	MND
	Replacement	B4	MND	MND	MND	MND	MND	MND
	Refurbishment	B5	MND	MND	MND	MND	MND	MND
	Operational energy use	B6	MND	MND	MND	MND	MND	MND
	Operational water use	B7	MND	MND	MND	MND	MND	MND
100% - Landfill								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU = Components for reuse;
MFR = Materials for recycling

MER = Materials for energy recovery;
EE = Exported Energy

Scenarios and additional technical information

Scenarios and additional technical information						
Scenario	Parameter			Units	Results	
A4 – Transport to the building site	Mayflex receives the jack, port modules, and RJ45 Plug from PRC and without any further processing in the distribution sector they will be distributed to the customer site.					
	Fuel type / Vehicle type			Road transport	16–32-ton lorry	
	Distance: Mayflex to customer site			km	172	
	Capacity utilisation (incl. empty returns)			%	49	
	Bulk density of transported products			kg/m ³	342	
A5 – Installation in the building	Installation of Keystone Jack, port module, and RJ45 Plug is generally carried out by manual labour, no powered equipment or consumable items are used in this process, so no waste is generated during the installation					
	Packaging waste during the installation (kg)	FTP Screened Keystone Jack Toolless (10s0-181-24)	STP Screened Angled Keystone Jack Toolless (100-185-24)	FTP Screened 6 Port ExpressNet Module (100-237)	FCat6 6 Port Unscreened ExpressNet Module (100-235)	Screened Field Termination RJ45 Plug (100-140)
	Cardboard	0.187	0.152	0.328	0.389	0.328
	Polypropylene	0.045	0.000	0.000	0.000	0.170
	Labels	0.008	0.008	0.012	0.028	0.091
End of life	The Keystone jack, port modules, and RJ45 plug are removed manually, and it is assumed that the product is not recycled so will be sent to landfill					
C2- Transportation	Recovered products are taken back by the registered broker to landfill.			km	12.5	
C3 – Pre-processing	It is not economical to recycle plastic data modules therefore they are taken to landfill via a WEEE registered commercial waste disposal company. Therefore, without any pre-processing on the recovered jacks they are sent to landfilling. No impacts from C3.					
C4 – Disposal	Jacks, modules, and RJ45 plug sent to landfill		FTP Screened Keystone Jack Toolless (100-181-24)		0.468 kg/unit	
			STP Screened Angled Keystone Jack Toolless (100-185-24)		0.782 kg/unit	
			FTP Screened 6 Port ExpressNet Module (100-237)		0.305 kg/unit	
			FCat6 6 Port Unscreened ExpressNet Module (100-235)		0.079 kg/unit	
			Screened Field Termination RJ45 Plug (100-140)		0.0183 kg/unit	
Module D	As the products are not recycled, there are no Module D recycling benefits considered in this study.					

Interpretation of results:

The bulk of the environmental impacts are attributed to the manufacturing of Keystone jack, port modules, and RJ45 plug covered by information modules A1-A3 of EN15804:2012+A2:2019.

References

BSI. Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products. BS EN 15804:2012+A2:2019. London, BSI, 2019.

BSI. Environmental labels and declarations – Type III Environmental declarations – Principles and procedures. BS EN ISO 14025:2010 (exactly identical to ISO 14025:2006). London, BSI, 2010.

BSI. Environmental management – Life cycle assessment – Principles and framework. BS EN ISO 14040:2006. London, BSI, 2006.

BSI. Environmental management – Life cycle assessment – requirements and guidelines. BS EN ISO 14044:2006. London, BSI, 2006.

Annex:

The below standards are applicable for Jack, Modules, and RJ45 plug.

Standard
ISO/IEC 11801-1:2017 Information technology - Generic cabling for customer premises: Part 1 General Requirements
EN 50173-1:2018 Information technology. Generic cabling systems - General requirements
ANSI/TIA 568-2. D Balanced Twisted-Pair Telecommunications Cabling and Components Standards
IEC 60603-7-51 Connectors for electronic equipment - Part 7-51: Detail specification for 8-way, shielded, free and fixed connectors, for data transmissions with frequencies up to 500 MHz
EIA/TIA-1096-A:2008-03-17 Telecommunications Telephone Terminal Equipment Connector Requirements for Connection of Terminal Equipment to the Telephone Network
UL-94-V-0 Burning stops within 10 seconds after two applications of ten seconds each of a flame to a test bar. NO flaming drips are allowed.
RoHS Compliant to the Restriction of Hazardous Substances
WFD Compliant to Waste Framework Directive
SCIP Compliant - Does Not Contain Substances of Concern in Products