Product Environmental Profile

Family technical name: Outdoor Loose tube Dry

Family brand name: GRHL Ultimate™ & GRHL & QXXE & FZOMU

Reference product name : GRHL-U-CDGNRV 96_T12 G657A1 S12 (1.6-tub)

1,064	0,00000004	0,0065	12,3
kg CO_2 eq.	kg Sb eq.	m^3	MJ
Climate change - total	Resource use - minerals & metals (ADPe)	Net use of fresh water	Total Primary Energy

The above environmental impacts are "cradle to gate" or "Manufacturing phase" values (A1-A3)

PEP ecopassport N°:	NXNS-00662-V02-01-EN	Product Category Rules:	PEP-PCR-ed4-EN-2021 09 06
		Product Specific Rules:	PSR-0001-ed4-EN-2022 11 16
Verifier accreditation N°:	VH08	Program information & documents:	**www.pep-ecopassport.org**
Date of publication:	11-2025	Validity period:	**5 years**

Independent verification of the declaration and data, in accordance with ISO 14025 : 2006

Internal ☐ External ☒

The PCR critical review was conducted by a panel of experts chaired by Julie Orgelet (Ddemain).

PEP are compliant with XP C08-100-1 :2016 or EN 50693
The elements of the present PEP cannot be compared with elements from another program.

Compliant with ISO 14025: 2006 "Environmental labels and declarations - Type III environmental declarations".

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Nexans Corporate Social Responsibility commitment

Corporate Social Responsibility which is the confluence between environmental, economic and social aspects, is an integral part of the Nexans's strategy. Nexans has been supporting the **United Nations Global Compact** since December 2008 and has implemented internal action plans to integrate Sustainable Development at all levels. It includes responsible governance, healthy and safe working environment for employees, reduced global carbon footprint through the **Nexans Carbon Neutrality strategy.**

Reference Product description

GRHL-U-CDGNRV 96_T12 G657A1 S12 (1.6-tub)

Type GRHL is a loose tube fibre optical cable. The cable type is intended for use in regional, urban, and area property networks.

Products covered:

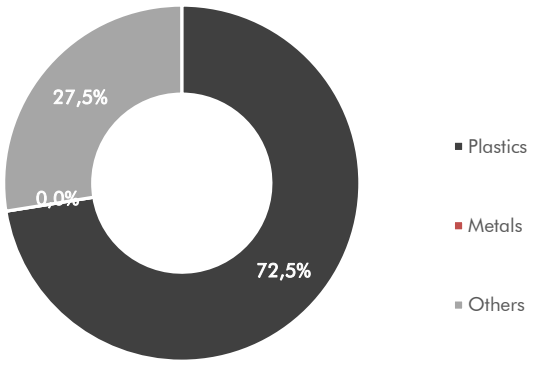
The aforementioned products belong to the category communication and data wires & cables of the Product Specific Rules (PSR) for Wires, Cables and Accessories (PSR-0001) of the PEP ecopassport® program.

The PEP concern all the products in the range Outdoor Loose tube Dry and the reference product of the PEP is GRHL-U-CDGNRV 96_T12 G657A1 S12 (1.6-tub).

Functional unit:

To transmit a communication signal on 1 m according to protocol,10GBASE-LR, during 20 years and a 100% use rate in accordance with the standards in force, detailed in the data sheet available on our website www.nexans.com.
Lifetime and use rate correspond to the Infrastructure - Telecom network (fixed and mobile) application as defined in the table given in Appendix 1 of the specific rules for wires, cables and accessories.

Constituent materials



The total mass of the reference product and packaging is 40,54 g/m. Constituent materials are distributed as given in the graph.

Nexans has implemented necessary procedures to ensure product compliance with the relevant standards when products are put on the market.

II. LIFE CYCLE ASSESSMENT

Manufacturing

- All the products in the range Outdoor Loose tube Dry are manufactured in Sweden.
- The electricity mix model for the manufacturing stage is from Sweden >1 kV.
- The reference year for the collected LCI is 2024
- All Nexans sites in Sweden have implemented a certified Environmental Management System according to ISO14001 standard.

Packaging designed to reduce environmental impacts:

- Packaging was designed according to the applicable standard (Directive 94/62/EC).
- The packaging considered to transport the reference product is a Plastic drum. It is considered to be used 1 time.

Distribution

The transportation scenario for the impact assessment of the distribution stage is local, considering:

- 1000 km covered by truck.

Installation

Installation processes for the reference product are considered out of the scope of the study, according to the Product Specific Rules document for "Wires, Cables and Accessories" from PEP ecopassport® program. Only 5% of product losses and packaging disposal is considered inthis stage

Use

The use scenario considers the operation of the reference product in Infrastructure - Telecom network (fixed and mobile), with:

- Reference Lifetime (RLT) = 20 years
- Protocol: 10GBASE-LR
- Use rate = 100%
- Type: Single mode

Considering the aforementioned hypotheses, the energy consumption over the RLT at use stage is 0,0015 kWh/m.

- The electricity mix considered at use stage is Sweden ≤1 kV.
- No maintenance is necessary to ensure the operation of the cable during the considered reference lifetime.

The reference lifetime mentioned in this PEP corresponds to an average data used for impact calculation, taking into account the average time a cable might be installed in a system before being disposed. **It CANNOT BE considered as an equivalent to the guaranteed product technical lifetime.**

End-of-life

- The transportation scenario chosen for the impact analysis associated with end-of-life stage is 1000 km covered by truck.
- The assumed electricity mix model for end-of-life stage is Sweden ≤1 kV.

The cables are recycled through a grinding process for the separation of polymers and metal parts. The separated materials are then assumed to be recycled, incinerated or landfilled according to default scerios given in the PCR.

If the customer wants to recycle their cables at the end-of-life, Nexans has the know-how of cables recycling at their end-of-life through the structure named Nexans Recycling Services (recycling.services@nexans.com), to offer a complete solution for the recycling of polymers and metals.

III. ENVIRONMENTAL IMPACTS

The reference product GRHL-U-CDGNRV 96_T12 G657A1 S12 (1.6-tub) belongs to the Product Category Rules (PEP-PCR-ed4-EN-2021 09 06) and Product Specific Rules (PSR-0001-ed4-EN-2022 11 16) from the PEP ecopassport® program. According to the PCR, the life cycle impact assessment of the reference product takes into account manufacturing, distribution, installation, use and end-of-life stages.

All the necessary hypotheses to evaluate the environmental impacts of the reference product lifecycle are presented in the previous sections (electricity mix models, use scenario, etc). The software used to perform the evaluation is EIME 6.3.0.1-4, with the Nexans-2024-07 database.

Representativeness: the study is representative of cable production in Sweden with a local scenario for distribution. The electricity model for use is Sweden ≤1 kV and the model for end-of-life is Sweden ≤1 kV.

Impact results for 1 m of GRHL-U-CDGNRV 96_T12 G657A1 S12 (1.6-tub)

Mandatory indicators:

Environmental indicator/flows	Unit	A1-Raw materials	A2-Transport to manufacturer	A3-Manufacturing process	*Total manufacturing A1-A3*	A4-Distribution to customer	A5-Installation*	B6-Use	C1-C4-End of life	TOTAL
Climate change - total (GWP)	kg CO_2 eq.	1,04E-01	7,14E-03	9,53E-01	*1,06E+00*	2,31E-03	5,36E-02	4,38E-05	4,26E-02	1,16E+00
Climate change - fossil (GWPf)	kg CO_2 eq.	1,03E-01	7,14E-03	9,37E-01	*1,05E+00*	2,31E-03	5,28E-02	4,33E-05	4,26E-02	1,15E+00
Climate change - biogenic (GWPb)	kg CO_2 eq.	4,77E-04	2,92E-08	1,56E-02	*1,61E-02*	9,45E-09	7,63E-04	4,55E-07	7,95E-06	1,69E-02
Climate change - land use & land use change (GWPlu)	kg CO_2 eq.	0,00E+00	1,08E-08	2,79E-09	*1,36E-08*	3,49E-09	1,58E-09	0,00E+00	2,91E-09	2,16E-08
Ozone layer depletion (ODP)	kg CFC-11 eq.	6,43E-09	8,66E-11	2,37E-08	*3,02E-08*	2,80E-11	1,46E-09	1,33E-12	1,55E-10	3,18E-08
Acidification potential of soil and water (AP)	mol H+ eq.	5,14E-04	1,13E-05	2,76E-03	*3,29E-03*	3,65E-06	1,61E-04	7,45E-07	4,75E-05	3,50E-03
Eutrophication - freshwater (Epf)	kg PO43- eq.	8,62E-07	2,67E-08	2,95E-05	*3,04E-05*	8,63E-09	1,76E-06	1,99E-09	8,41E-07	3,30E-05
Eutrophication - marine (Epm)	kg N eq.	7,31E-05	2,04E-06	7,79E-04	*8,54E-04*	6,61E-07	4,16E-05	7,84E-08	7,74E-06	9,04E-04
Eutrophication - terrestrial (Ept)	mol N eq.	8,04E-04	2,24E-05	8,13E-03	*8,96E-03*	7,26E-06	4,38E-04	2,76E-06	1,12E-04	9,52E-03
Photochemical ozone formation - human health (POCP)	kg NMVOC eq.	4,59E-04	7,25E-06	2,85E-03	*3,32E-03*	2,35E-06	1,61E-04	1,84E-07	2,29E-05	3,50E-03
Resource use - minerals & metals (ADPe)	kg Sb eq.	3,65E-09	2,55E-09	3,72E-08	*4,34E-08*	8,24E-10	2,41E-09	2,32E-10	2,53E-09	4,94E-08
Resource use - fossils (ADPf)	MJ	2,87E+00	1,27E-01	8,92E+00	*1,19E+01*	4,10E-02	5,93E-01	8,02E-03	2,25E-01	1,28E+01
Water use (WU)	m3 eq.	4,92E-02	2,57E-04	2,30E-01	*2,80E-01*	8,31E-05	1,35E-02	2,79E-05	3,62E-03	2,97E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3,55E-03	4,00E-04	3,58E-01	*3,62E-01*	1,29E-04	2,00E-02	5,61E-03	5,15E-02	4,39E-01
Use of renewable primary energy used as raw material (PERM)	MJ	0,00E+00	0,00E+00	0,00E+00	*0,00E+00*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renewable primary energy resources (PERT)	MJ	3,55E-03	4,00E-04	3,58E-01	*3,62E-01*	1,29E-04	2,00E-02	5,61E-03	5,15E-02	4,39E-01
Non-renewable primary energy excluding non-renewable primary energy resources used as	MJ	2,00E+00	1,27E-01	8,90E+00	*1,10E+01*	4,10E-02	5,52E-01	8,02E-03	2,25E-01	1,19E+01
Use of non renewable primary energy resources used as raw materials (PENRM)	MJ	8,71E-01	0,00E+00	2,01E-02	*8,91E-01*	0,00E+00	4,13E-02	0,00E+00	0,00E+00	9,32E-01
Total use of non-renewable primary energy resources (PENRT)	MJ	2,87E+00	1,27E-01	8,92E+00	*1,19E+01*	4,10E-02	5,93E-01	8,02E-03	2,25E-01	1,28E+01
Use of secondary material (SM)	kg	0,00E+00	0,00E+00	8,13E-03	*8,13E-03*	0,00E+00	4,06E-04	0,00E+00	0,00E+00	8,53E-03
Use of renewable secondary fuels (RSF)	MJ	0,00E+00	0,00E+00	0,00E+00	*0,00E+00*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels (NRSF)	MJ	0,00E+00	0,00E+00	0,00E+00	*0,00E+00*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water (FW)	m3	1,15E-03	5,98E-06	5,37E-03	*6,52E-03*	1,94E-06	3,13E-04	6,61E-07	8,44E-05	6,92E-03
Hazardous waste disposed (HWD)	kg	2,55E-03	2,99E-05	3,47E-03	*6,05E-03*	9,66E-06	3,04E-04	2,22E-05	2,19E-04	6,61E-03
Non hazardous waste disposed (NHWD)	kg	6,51E-03	6,62E-04	3,48E-02	*4,19E-02*	2,14E-04	1,31E-02	5,02E-05	3,99E-02	9,51E-02
Radioactive waste disposed	kg	2,76E-06	5,25E-07	1,38E-05	*1,71E-05*	1,70E-07	1,25E-06	3,21E-09	2,01E-06	2,05E-05
Components for reuse (CRU)	kg	0,00E+00	0,00E+00	0,00E+00	*0,00E+00*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling (MFR)	kg	0,00E+00	0,00E+00	4,62E-04	*4,62E-04*	0,00E+00	4,45E-04	0,00E+00	8,45E-03	9,35E-03
Materials for energy recovery (MER)	kg	0,00E+00	0,00E+00	4,28E-04	*4,28E-04*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,28E-04
Exported Energy (EE)	MJ	0,00E+00	0,00E+00	0,00E+00	*0,00E+00*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

* Installation stage includes only 5% product lossses & packaging disposal. Impacts related to installation processes might be completed by the PEP user.

Environmental indicator/flows	Unit	Total
Biogenic carbon content - product (BC-pro)	kg of C	0,00E+00
Biogenic carbon content - packaging (BC-pack)	kg of C	0,00E+00

Biogenic carbon storage is calculated according to the 0/0 assessment methodology & according to EN 16485.

Optional indicators:

Environmental indicator/flow	Unit	A1-Raw materials	A2-Transport to manufacturer	A3-Manufacturing process	*Total A1-A3*	A4-Distribution to customer	A5-Installation*	B6-Use	C1-C4-End of life	TOTAL
Total Primary Energy (TPE)	MJ	0,00E+00	2,08E-01	3,40E+00	*3,60E+00*	6,74E-02	2,51E-01	5,81E-04	1,04E-01	0,00E+00
EF-particulate matter (EF-PM)	Disease occurance	2,88E-09	1,40E-12	4,29E-11	*2,92E-09*	4,52E-13	3,77E-12	1,07E-14	1,69E-12	2,29E-08
Ionising radiation, human health (IR)	kg U235 eq.	2,41E-01	2,67E-11	1,56E-09	*2,41E-01*	8,63E-12	1,11E-10	4,09E-13	3,04E-11	4,12E-01
Ecotoxicity, freshwater (Eco-fw)	CTUe	1,11E+00	3,05E-05	5,52E-04	*1,11E+00*	9,88E-06	1,90E-04	9,82E-06	6,08E-05	5,14E+00
Human toxicity, cancer (HT-c)	CTUh-c	3,46E-11	0,00E+00	0,00E+00	*3,46E-11*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,48E-11
Human toxicity, non-cancer (HT-nc)	CTUh-nc	6,37E-10	0,00E+00	0,00E+00	*6,37E-10*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,38E-09
Land use (LU)	No dimension	3,65E-03	0,00E+00	0,00E+00	*3,65E-03*	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,51E-03

Environmental indicators are calculated according to JRC method - EF3.1.

V. EXTRAPOLATION RULES FOR THE PRODUCT FAMILY GRHL Ultimate™ & GRHL & QXXE & FZOMU

General information

The extrapolation rules have been calculated based on the environment impact assessment results of 6 products in the range Outdoor Loose tube Dry. The reference product is GRHL-U-CDGNRV 96_T12 G657A1 S12 (1.6-tub). The weight of reference product is 40,54 g/m.

The extrapolation rules below apply to 1m of product. In the following sections, the product weight is expressed in g for 1m of cable, where applicable.

Extrapolation rules for each life cycle stage

	Life cycle stage	Applicable extrapolation principle	Formula to calculate each environmental indicator	Example: If the product weight is 50,54 g/m, each indicator value shall be calculated with:	Mean deviation of extrapolation rule
	A1-Raw materials	Linear variation versus weight	Indicator = (a x Cable weight) + b. N.B.: extrapolation coefficients (a & b) are different depending on whether the product weight is higher or lower than 33,745 g/m	Indicator = (50,54 x a) + b	4,87%
	A2-Transport to manufacturer	Linear variation versus weight	Indicator = (a x Cable weight) + b. N.B.: extrapolation coefficients (a & b) are different depending on whether the product weight is higher or lower than 33,745 g/m	Indicator = (50,54 x a) + b	0,09%
	A3-Manufacturing process	Linear variation versus weight	Indicator = (a x Cable weight) + b. N.B.: extrapolation coefficients (a & b) are different depending on whether the product weight is higher or lower than 33,745 g/m	Indicator = (50,54 x a) + b	9,34%
	A4-Distribution to customer	Linear variation versus weight	Indicator = a x Cable weight + b	Indicator = 50,54 x a + b.	2,45%
	A5-Installation	Maximum impact value	The maximum impact values (MIV) indicated in the table below are applicable to the whole range for installation stage impacts	N/A	N/A
	B6-Use	Variation versus cable power consumption	Indicator = (Reference power consumption/Reference fibre count) x Indicator fibre count	N/A	0,00%
	C1-C4-End of life	Linear variation versus weight	Indicator = a x Cable weight + b	Indicator = (50,54 x a) + b	6,07%

Table to be considered for extrapolation calculations of different life cycle stages:

	A1-Raw materials				A2-Transport to manufacturer				A3-Manufacturing process				A4-Distribution to customer		A5-Installation	B6-Use	C1-C4 End of life	
	Weight < 33,745 g/m		Weight > 33,745 g/m		Weight < 33,745 g/m		Weight > 33,745 g/m		Weight < 33,745 g/m		Weight > 33,745 g/m							
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	a	a	b
GWP	2,64E-04	5,58E-02	1,93E-03	1,81E-02	1,74E-04	8,48E-05	1,74E-04	8,48E-05	2,94E-02	-1,93E-01	2,94E-02	-1,93E-01	5,32E-05	1,96E-04	1,55E-01		1,01E-03	1,96E-03
GWPf	4,85E-04	4,94E-02	1,90E-03	1,88E-02	1,74E-04	8,48E-05	1,74E-04	8,48E-05	2,89E-02	-1,90E-01	2,89E-02	-1,90E-01	5,32E-05	1,96E-04	1,53E-01		1,01E-03	1,96E-03
GWPb	-2,21E-04	6,36E-03	2,94E-05	-7,36E-04	7,11E-10	3,47E-10	7,11E-10	3,47E-10	4,84E-04	-3,22E-03	4,84E-04	-3,22E-03	2,18E-10	8,01E-10	2,34E-03		1,77E-07	3,98E-07
GWPlu	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,63E-10	1,28E-10	2,63E-10	1,28E-10	4,35E-11	1,33E-09	4,35E-11	1,33E-09	8,05E-11	2,96E-10	3,95E-09		7,18E-11	4,14E-25
ODP	7,51E-10	-1,59E-08	1,28E-10	9,45E-10	2,11E-12	1,03E-12	2,11E-12	1,03E-12	7,31E-10	-4,82E-09	7,31E-10	-4,82E-09	6,46E-13	2,38E-12	4,15E-09		3,71E-12	2,62E-12
AP	3,60E-05	-6,11E-04	9,69E-06	9,83E-05	2,75E-07	1,34E-07	2,75E-07	1,34E-07	8,39E-05	-4,99E-04	8,39E-05	-4,99E-04	8,41E-08	3,09E-07	4,60E-04		1,08E-06	2,08E-06
Epf	-1,96E-07	5,82E-06	2,85E-08	-3,60E-07	6,50E-10	3,17E-10	6,50E-10	3,17E-10	9,13E-07	-6,08E-06	9,13E-07	-6,08E-06	1,99E-10	7,32E-10	5,07E-06		2,14E-08	-2,43E-08
Epm	1,80E-06	-4,48E-07	1,41E-06	1,17E-05	4,98E-08	2,43E-08	4,98E-08	2,43E-08	2,38E-05	-1,47E-04	2,38E-05	-1,47E-04	1,52E-08	5,61E-08	1,21E-04		1,77E-07	3,09E-07
Ept	2,08E-05	-2,93E-05	1,56E-05	1,29E-04	5,46E-07	2,67E-07	5,46E-07	2,67E-07	2,48E-04	-1,49E-03	2,48E-04	-1,49E-03	1,67E-07	6,15E-07	1,27E-03		2,57E-06	4,41E-06
POCP	3,71E-05	-6,78E-04	9,85E-06	3,97E-05	1,77E-07	8,62E-08	1,77E-07	8,62E-08	8,74E-05	-5,49E-04	8,74E-05	-5,49E-04	5,41E-08	1,99E-07	4,65E-04		5,25E-07	8,70E-07
ADPe	1,70E-11	1,11E-09	2,47E-11	2,25E-09	6,20E-11	3,03E-11	6,20E-11	3,03E-11	1,07E-09	-3,18E-09	1,07E-09	-3,18E-09	1,90E-11	6,99E-11	6,60E-09		6,10E-11	2,81E-11
ADPf	-1,60E-02	2,35E+00	6,94E-02	-9,27E-02	3,09E-03	1,51E-03	3,09E-03	1,51E-03	2,72E-01	-1,65E+00	2,72E-01	-1,65E+00	9,45E-04	3,48E-03	1,70E+00		5,16E-03	7,69E-03
WU	-2,26E-03	9,28E-02	1,16E-03	-3,60E-04	6,26E-06	3,05E-06	6,26E-06	3,05E-06	7,10E-03	-4,64E-02	7,10E-03	-4,64E-02	1,92E-06	7,05E-06	3,92E-02		8,60E-05	1,66E-04
PERE	-1,35E-03	3,94E-02	1,98E-04	-4,62E-03	9,73E-06	4,75E-06	9,73E-06	4,75E-06	9,42E-03	2,42E-02	9,42E-03	2,42E-02	2,98E-06	1,10E-05	5,65E-02		1,20E-03	1,46E-03
PERM	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
PERT	-1,35E-03	3,94E-02	1,98E-04	-4,62E-03	9,73E-06	4,75E-06	9,73E-06	4,75E-06	9,42E-03	2,42E-02	9,42E-03	2,42E-02	2,98E-06	1,10E-05	5,65E-02		1,20E-03	1,46E-03
PENRE	3,83E-02	2,20E-01	3,93E-02	2,81E-01	3,09E-03	1,51E-03	3,09E-03	1,51E-03	2,72E-01	-1,66E+00	2,72E-01	-1,66E+00	9,45E-04	3,48E-03	1,56E+00		5,16E-03	7,69E-03
PENRM	-5,43E-02	2,12E+00	3,01E-02	-3,74E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,02E-04	1,02E-02	3,02E-04	1,02E-02	0,00E+00	0,00E+00	1,38E-01		0,00E+00	0,00E+00
PENRT	-1,60E-02	2,35E+00	6,94E-02	-9,27E-02	3,09E-03	1,51E-03	3,09E-03	1,51E-03	2,72E-01	-1,65E+00	2,72E-01	-1,65E+00	9,45E-04	3,48E-03	1,70E+00		5,16E-03	7,69E-03
SM	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,22E-04	4,13E-03	1,22E-04	4,13E-03	0,00E+00	0,00E+00	9,29E-04		0,00E+00	0,00E+00
RSF	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
NRSF	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
FW	-5,27E-05	2,16E-03	2,70E-05	-8,39E-06	1,46E-07	7,11E-08	1,46E-07	7,11E-08	1,65E-04	-1,08E-03	1,65E-04	-1,08E-03	4,46E-08	1,64E-07	9,13E-04		2,00E-06	3,87E-06
HWD	1,93E-04	-3,63E-03	3,42E-05	9,90E-04	7,27E-07	3,55E-07	7,27E-07	3,55E-07	1,01E-04	-3,28E-04	1,01E-04	-3,28E-04	2,23E-07	8,19E-07	7,57E-04		5,13E-06	5,29E-06
NHWD	4,58E-04	-8,82E-03	7,45E-05	2,97E-03	1,61E-05	7,87E-06	1,61E-05	7,87E-06	1,04E-03	-5,43E-03	1,04E-03	-5,43E-03	4,94E-06	1,82E-05	3,17E-02		9,92E-04	-1,82E-04
RWD	3,06E-07	-6,45E-06	4,19E-08	9,06E-07	1,28E-08	6,24E-09	1,28E-08	6,24E-09	4,22E-07	-2,66E-06	4,22E-07	-2,66E-06	3,91E-09	1,44E-08	3,32E-06		4,84E-08	3,00E-08
CRU	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
MFR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,02E-05	2,97E-05	1,02E-05	2,97E-05	0,00E+00	0,00E+00	1,12E-03		1,87E-04	5,44E-04
MER	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,43E-06	2,18E-04	6,43E-06	2,18E-04	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
EE	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
BC-pro	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
BC-pack	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
TPE	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		0,00E+00	0,00E+00
EF-PM	7,23E-11	1,19E-10	6,65E-11	6,41E-11	2,36E-12	1,15E-12	2,36E-12	1,15E-12	5,59E-10	-3,27E-09	5,59E-10	-3,27E-09	7,21E-13	2,65E-12	3,06E-09		8,58E-12	1,52E-11
IR	-1,11E-01	3,19E+00	1,48E-02	-3,70E-01	6,15E-06	3,00E-06	6,15E-06	3,00E-06	3,78E-03	3,58E-04	3,78E-03	3,58E-04	1,88E-06	6,93E-06	7,83E-02		2,79E-04	4,47E-04
Eco-fw	-6,78E-03	7,42E-01	1,47E-02	4,09E-01	5,07E-03	2,47E-03	5,07E-03	2,47E-03	1,04E-01	-6,54E-01	1,04E-01	-6,54E-01	1,55E-03	5,71E-03	6,71E-01		2,53E-03	7,07E-04
HT-c	5,68E-12	-1,28E-10	7,42E-13	3,32E-12	3,41E-14	1,66E-14	3,41E-14	1,66E-14	1,21E-12	-3,71E-12	1,21E-12	-3,71E-12	1,04E-14	3,84E-14	1,02E-11		4,00E-14	3,76E-14
HT-nc	6,33E-11	-1,26E-09	1,26E-11	9,49E-11	6,49E-13	3,17E-13	6,49E-13	3,17E-13	4,82E-11	-3,11E-10	4,82E-11	-3,11E-10	1,99E-13	7,32E-13	3,07E-10		6,98E-13	1,02E-12
LU	-1,71E-03	4,93E-02	2,28E-04	-5,73E-03	7,44E-07	3,63E-07	7,44E-07	3,63E-07	8,77E-06	3,00E-04	8,77E-06	3,00E-04	2,28E-07	8,38E-07	9,52E-04		1,50E-06	1,36E-20

VI. PRODUCTS COVERED BY THE PEP

The products covered by the given PEP are represented in the below table:

GRHL-U-CDGNRV 12/T12 G657A1 S12 (1.6-tub)
GRHL-U-CDGNRV 24/T12 G657A1 S12 (1.6-tub)
GRHL-U-CDGNRV 48/T12 G657A1 S12 (1.6-tub)
GRHL-U-CDGNRV 72/T12 G657A1 S12 (1.6-tub)
GRHL-U-CDGNRV 96/T12 G657A1 S12 (1.6-tub)
GRHL-U-CDGNRV 12/T12 G657A1 S12 (1.6-tub | luftdukt)
GRHL-U-CDGNRV 24/T12 G657A1 S12 (1.6-tub | luftdukt)
GRHL-U-CDGNRV 48/T12 G657A1 S12 (1.6-tub | luftdukt)
GRHL-U-CDGNRV 72/T12 G657A1 S12 (1.6-tub | luftdukt)
GRHL-U-CDGNRV 288/T24 G657A1 S12 (2.1-tub)
GRHL-U-CDGNRV 144/T24 G657A1 S12 (1.9-tub)
GRHL-U-CDGNRV 192/T24 G657A1 S12 (1.9-tub)
GRHL-U-CDGNRV 288/T24 G657A1 200µm S12 (1.7-tub)
GRHL-U-CDGNRV 288/T24 G657A1 200µm S12 (1.47-tub)
GRHL-U-CDGNRV 192/T24 G657A1 200um S12 (1.47-tub)
GRHL-U-CDGNRV 48/T12 G657A1 S12 (1.6-tub)
GRHL-U-CDGNRV 96/T12 G657A1 S12 (1.6-tub)
GRHL-U-CDGNRV 192/T24 G657A1 S12 (1.9-tub)
GRHL-U-CDGNRV 12/T12 G657A1 (SD1.6 | EIA/TIA)
GRHL-U-CDGNRV 24/T12 G657A1 (SD1.6 | EIA/TIA)
GRHL-U-CDGNRV 48/T12 G657A1 (SD1.6 | EIA/TIA)
GRHL-U-CDGNRV 96/T12 G657A1 (SD1.6 | EIA/TIA)
GRHL-U-CDGNRV 192/T24 G657A1 200um (SD1.47 | EIA/TIA)
GRHL-U-CDGNRV 288/T24 G657A1 200µm (SD1.47 | EIA/TIA)
GRHLDV 6MM 50um OM3 (SD | EIA/TIA)
GRHLDV 12MM 50um OM3 (SD | EIA/TIA)
GRHL-U-CDGNRV 288/T24 G657A1 200µm (1.47 | EIA/TIA | SIRO)
DK-GRHLDV 12SM G652D (SD) helical
GRHL-U-CDGNRV 288/T24 G657A1 200µm (1.47-tub | Schweiz)
GRHL-U-CDGNRV 24/T12 G657A1 (1.6-tub | Schweiz)
GRHL-U-CDGNRV 48/T12 G657A1 (1.6-tub | Schweiz)
GRHL-U-CDGNRV 72/T12 G657A1 (1.6-tub | Schweiz)
GRHL-U-CDGNRV 96/T12 G657A1 (1.6-tub | Schweiz)
GRHL-U-CDGNRV 144/T24 G657A1 (1.95-tub | Schweiz)
GRHL-U-CDGNRV 192/T24 G657A1 200µm (1.47-tub | Schweiz)
GRHL-U-CDGNRV 144/T24 G657A1 200µm (1.47-tub | Schweiz)
G192 G657A1/200µm QXXE ULTIMATE T24
G288 G657A1/200µm QXXE ULTIMATE T24
G12 G652D/G657A1 QXXE ULTIMATE
G24 G652D/G657A1 QXXE ULTIMATE
G48 G652D/G657A1 QXXE ULTIMATE
G96 G652D/G657A1 QXXE ULTIMATE
G144 G652D/G657A1 QXXE ULTIMATE T24 (1.95-tub)
G192 G652D/G657A1 QXXE ULTIMATE T24 (1.95-tub)
G288 G652D/G657A1 QXXE ULTIMATE T24 (2.1-tub)
TRV GRHL-U-CDGNRV 96/T12 G652D
TRV GRHL-U-CDGNRV 144/T24 G652D
FZOMU-SD 1x12xSML G657A1 (FIN2012 | 1.6)
FZOMU-SD 2x12xSML G657A1 (FIN2012 | 1.6)
FZOMU-SD 4x12xSML G657A1 (FIN2012 | 1.6)
FZOMU-SD 8x12xSML G657A1 (FIN2012 | 1.6)
FZOMU-SD 6x24xSML G657A1 (FIN2012 | 1.9)
FZOMU-SD 8x24xSML G657A1 (FIN2012 | 1.9)
GRHLDV 6SM G652D (SD | EIA/TIA)
GRHLDV 12SM G652D (SD | EIA/TIA)