Environmental Product Declaration

EPD of multiple products according to ISO 14025 and EN 15804, valid for the LSN, M, MGR, DUOFIT series

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
Registration number:	EPD-IES-0017789
Publication date:	2024-12-18
Review date:	
Valid until:	2029-12-18

This is an EPD of multiple products, based on an average representative product

An EPD shall provide up-to-date information and may be updated if conditions change. The declared validity is therefore subject to continuous registration and publication on www.environdec.com.

Information on the programme operator

Programme:	The International EPD® System EPD International AB Box 210 60 SE-100 31 Stockholm Sweden www.environdec.com info@environdec.com

Product Category Rules (PCR)
The EN15804 standard has been used as a basic rule for the product category
Product category rules (PCR): construction products and construction services (PCR 2019:14), version 1.3.4, 2025-06-20
PCR Review conducted by: *Claudia A.Pena, University of Conception, Chile.* The Revision Committee can be contacted via the Secretariat (www.environdec.com/contact)
Life Cycle Assessment (LCA)
LCA study carried out by Environment Park Spa (Scientific and Technological Park for the Environment, Via Livorno, 60 10144 – Turin, Italy; www.envipark.com)
Third-party verification
Independent verification of declaration and data, in accordance with ISO 14025:2006: Third-party verifier: TUV Italia srl Accredited or approved by: Accredia
The procedure for reviewing data during EPD validity involves a third-party verifier: ☐ Yes ☒ No

The owner of the EPD has sole ownership and responsibility for the EPD.

EPDs within the same product category but from different certification programmes or not in line with EN 15804:2012+A2:2019 cannot be compared. For two EPDs to be comparable, they must be based on the same PCR (including the same version number up to the first two digits) or they must be based on PCR or fully aligned PCR versions: cover products with identical functions, technical performance and use (e.g. identical declared/functional units); have equivalent system boundaries and data descriptions; apply identical data quality requirements, data collection methods and data quality requirements, data collection methods and allocation methods; apply identical separation rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; be valid at the time of comparison."

Product information

Owner of the EPD: **Nova Siria srl**, Via Marconi 4-6, 10060 Roletto (TO)
Website: www.novasiria.it
EPD reference contact: Daniele Canavesio
E-mail: daniele.canavesio@novasiria.it
Mobile: +39 3440203309

Description of the organisation:

NOVA SIRIA is a leading manufacturer of custom-made mechanical couplings for jointing, repairing and hot tapping land and marine pipelines. NOVA SIRIA's production range offers the most technologically and qualitatively advanced solutions available on the market: reliability, versatility and fast delivery guarantee the success of these products, manufactured all over the world.
The production, which complies with ISO 9001, is characterised by a production cycle supported by advanced technologies to maintain a high level of quality. NOVA SIRIA's production is made up of several product groups available in various versions, characterised by a wide tolerance on the external diameters of the pipes, which allow for the jointing, repair and hot tapping of pipes with the same or different external diameters and materials.

Name and place of production site:

Manufacturer	**Location**
Nova Siria S.r.l.	Via Marconi 4- 6, Roletto (TO)

This is an EPD of multiple products from different series, featuring the same materials and the same main production process.
For each environmental indicator, the average figure is given as the result of weighting the data of the individual items produced, based on annual production and sales figures.
Pursuant to EN 15804:2012+A2:2019, the LCA study includes at least 95% of the total input flows (mass and energy) for each model. In addition, pursuant to ISO 21930, at least 95% of the environmental impacts for each module were included in the study.

Identification and designation of the product

The EPD covers a product of average composition, representative of 4 product series and all size variants (items), defined taking into account the volumes sold in the year 2023.
The product series have similar types of components and production process.

Series	**Description**
LSN	Large tolerance steel couplings
M	Adaptable and flanged couplings
MGR	End restrained coupling
DUOFIT	Two-piece couplings for pipeline repair without service interruption

Product description

The products are configured as jointing and repairing systems of pressure pipes conveying fluids (mainly drinking water). The products consist essentially of 4 materials: carbon steel for the construction of the main body and the compression and jointing flanges (cast iron limited to certain versions and items); carbon steel and stainless steel for the hardware; EPDM or NBR rubber gaskets for the hydraulic sealing rings; Rilsan nylon 11 anti-corrosive polymeric coating

All products are the result of 4 main production stages:

- Stage 1: Cutting, bending, calendering and drilling of carbon steel;
- Step 2: Welding of carbon steel elements;
- Step 3: Preparation of surfaces for the “painting” of materials and subsequent application of the coating using fluid bed technology;
- Step 4: Assembly of components to make the finished product, packaging and shipping

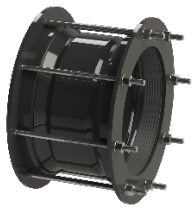
Product uses

The products are mainly used in the maintenance of aqueducts and pipelines.

For further information: https://www.novasiria.it/it/prodotti/

CPC Code: 41293 - Tube or pipe fittings, of steel other than cast-steel

Key product technical features



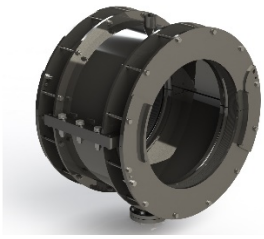
VERSIONS	LSN10 / LSN 10-D / LSN40	
	STANDARD	OPTIONS
NOMINAL DIAMETER (DN)	300-4000	Larger range
MOP (PN)	16	25-40
FLUID	Drinking water	Gas - Seawater
BODY:	Carbon steel	
COMPRESSION RINGS	Carbon steel	
GASKETS:	EPDM	NBR
COMPRESSION BOLTS	Carbon steel	Stainless steel
COATING:	Rilsan Nylon 11	
ADAPTABILITY RANGE	30 mm	50 mm
ANGULAR DEFLECTION	+/-3° up to DN 1000	


VERSIONS	M10-M40	
	STANDARD	OPTIONS
NOMINAL DIAMETER (DN)	300-1200	
MOP (PN)	16	
FLUID	Drinking water	
BODY	Carbon steel	
COMPRESSION RINGS	Cast iron up to DN 600 / carbon steel beyond	
GASKETS:	EPDM	
COMPRESSION BOLTS	Carbon steel	Stainless steel
COATING:	Rilsan Nylon 11	
ADAPTABILITY RANGE	24 or 30 mm depending on DN	
ANGULAR DEFLECTION	+/-3° up to DN 1000	



VERSIONS	MGR-S / MGR-D / MGR-F	
	STANDARD	OPTIONS
NOMINAL DIAMETER (DN)	300-2500	
MOP (PN)	16	25
FLUID	Drinking water	Seawater- Gas
BODY	Carbon steel	
COMPRESSION RINGS	Carbon steel	
GASKETS:	EPDM	NBR
COMPRESSION BOLTS	Carbon steel	Stainless steel
COATING:	Rilsan Nylon 11	
ADAPTABILITY RANGE	30 mm	
ANGULAR DEFLECTION	+/-3° up to DN 1000	





VERSIONS	D10 / D20-D / D30 / D2.30	
	STANDARD	OPTIONS
NOMINAL DIAMETER (DN)	50-3000	
MOP (PN)	16	25-40
FLUID	Drinking water	Gas - Seawater
BODY	Carbon steel	
COMPRESSION RINGS	Carbon steel	
GASKETS:	EPDM	NBR
COMPRESSION BOLTS	Carbon steel	Stainless steel
COATING:	Rilsan Nylon 11	
ADAPTABILITY RANGE	30 mm	42 mm
ANGULAR DEFLECTION	+/-3° up to DN 1000	

Declared unit: 1 kg of coupling with packaging

Reference service life: n.a.

For all industrial production stages of the direct suppliers of Twin Systems (core data), primary data with the following characteristics were used:

- industrial production data (consolidated data on one year of production)
- delivered directly by their respective manufacturing companies
- less than 5 years update (as required by EN 15804:2012+A2:2019)

Materials/process	Type	Source	Year
Production of hot-rolled steel, steel flanges, bolts and welding wire	Specific secondary data	Ecoinvent database	2021
Manufacture of cast iron flanges	Specific secondary data	Ecoinvent database	2023
Steel machining for the production of oxy-cut plates	Specific primary data	Suppliers	2023
Gasket production	General secondary data	Ecoinvent database	2023
Machining, assembly and packaging of the coupling	Specific primary data	Nova Siria	2023

Ecoinvent databases have been used for generic data.

Pursuant to EN 15804:2012+A2:2019, the LCA study includes at least 95% of the total input flows (mass and energy) for each model. In addition, pursuant to ISO 21930, at least 95% of the environmental impacts for each model were included in the study.

The system excludes impacts associated with:
- The packaging of raw materials arriving at the production site
- Waste arising from maintenance activities in the production plant
- Water consumption at Nova Siria, attributable entirely to office activities
- The share of methane gas attributable entirely to the heating of Nova Siria offices (Via Marconi 4, 6 and 7 plants)
- The primer used in the surface finishing phase at Nova Siria, negligible in quantity (<1%)

Database and LCA software used:
SimaPro Analyst v.9.4.0.1, Ecoinvent v.3.10

System phases analysed:

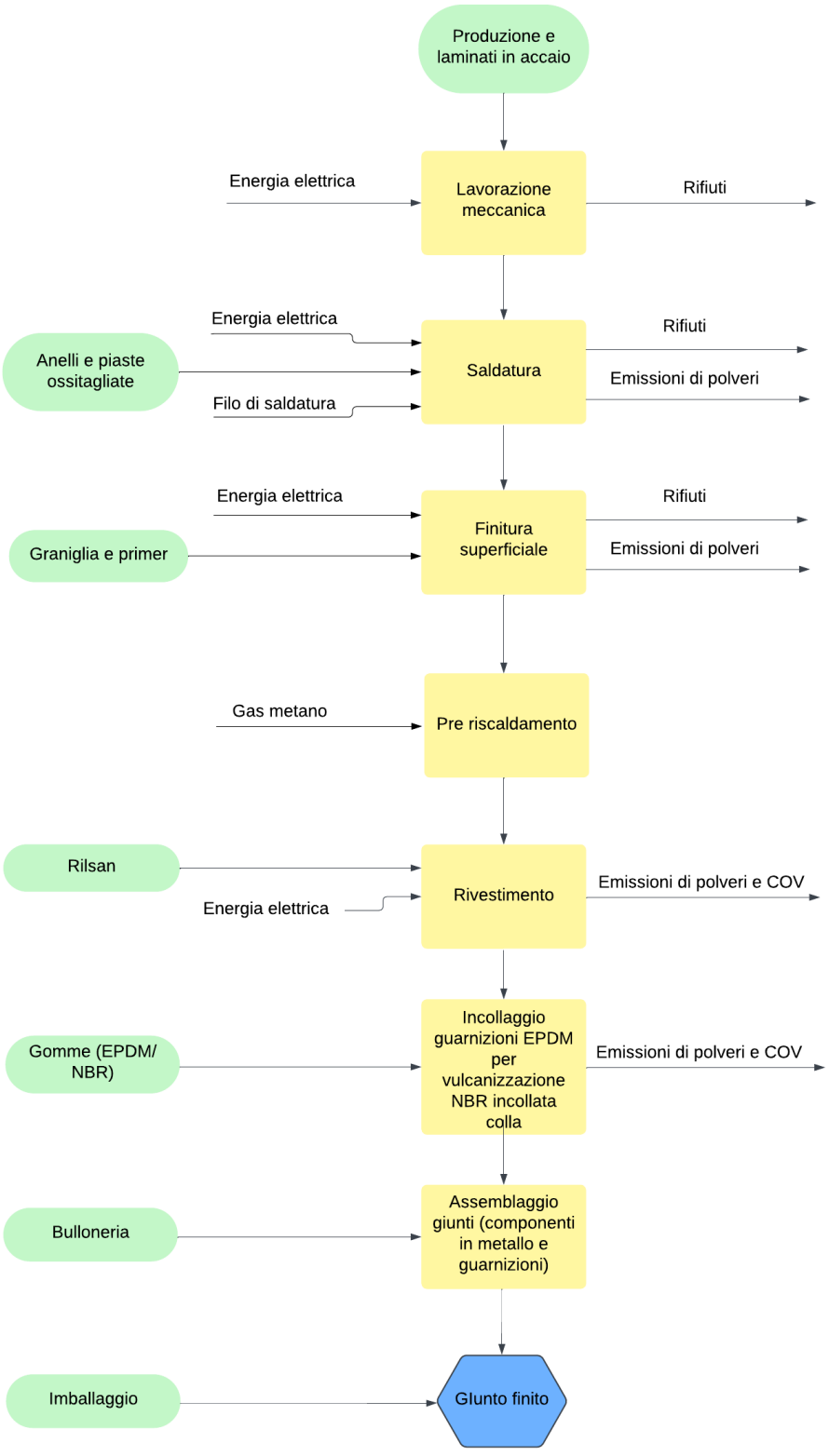
This EPD is a Cradle to Gate with Options type. The following life cycle phases have been analysed:

A1 Extraction of raw materials/production of the components that make up the product (rolled steel, steel oxy-cut plates, gaskets, ancillary products for coating, assembly and packaging processes)
A2 Transport: transport of components to the Nova Siria plant
A3 Production: assembly and packaging of components
C1 Not analysed (disassembly phase is attributable to the pipe on which the coupling is installed)
C2 Transport to waste treatment: transport of end-of-life components to waste collection and treatment centres
C3 Treatment of the product that has become waste
C4 Landfill (end-of-life scenario not considered)
D Benefits from the recovery and recycling of components, in subsequent systems

50 km were considered for the transport of all materials to the treatment plants

	Product			**Construction processes**		**Usage phase**							**End-of-life phase**				**Impacts beyond system boundaries**
	Sourcing raw materials	Transportation	Production	Transportation	Installation	Use	Maintenance	Repairs	Replacement	Renovation	Power consumption	Water consumption	Deconstruction-demolition	Transportation	Waste treatment	Disposal	Reuse-recovery-recycling potential
Models	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declared models	X	X	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	X	X	X	X	X
Geography	GLO	IT	IT	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Share of specific data	24,8 %[1]			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation between products	<10% [2]			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation between sites	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-

[1] Machining and assembly process at Nova Siria
[2] Value related to the variation of the GWP-GHG indicator between products


Produzione e laminati in accaio
Energia elettrica
Lavorazione meccanica
Rifiuti
Energia elettrica
Anelli e piaste ossitagliate
Filo di saldatura
Saldatura
Rifiuti
Emissioni di polveri
Energia elettrica
Graniglia e primer
Finitura superficiale
Rifiuti
Emissioni di polveri
Gas metano
Pre riscaldamento
Rilsan
Energia elettrica
Rivestimento
Emissioni di polveri e COV
Gomme (EPDM/ NBR)
Incollaggio guarnizioni EPDM per vulcanizzazione NBR incollata colla
Emissioni di polveri e COV
Bulloneria
Assemblaggio giunti (componenti in metallo e guarnizioni)
Imballaggio
GIunto finito

Sources of electricity used

The Italian Residual Mix provided by the AIB (Association of Issuing Bodies) was used for mains electricity. The reference year is 2023.
Moreover, the electricity produced through the PV panel installed at the site, for the self-consumed part of the production process in Nova Siria, has been enhanced from an environmental point of view. The value thus calculated is 19.7% of the total electricity used in phase A3.

2023 Italian residual mix

Primary sources used	%
Natural gas	**58.22%**
Coal	**22.72%**
Fuel oil	**3.76%**
Lignite	**0.05%**
Other fossils not specified	**3.57%**
Nuclear	**4.40%**
Hydroelectric and marine	**0.00%**
Wind	**0.43%**
Solar	**6.21%**
Biomass	**0.63%**
Geothermal	**0.00%**
Other renewables (biogas)	**0.00%**

The climate impact of the energy used is 0.813 kg CO_2 /kwh

Content Statement

Materials	Weight (kg)	Post-consumption recycled %	Biogenic material, weight- % and kg C/kg
Steel	0.932	0	-
Cast iron	0.017	0	-
Rubber	0.023	0	-
Surface coating	0.019	0	-
Welding wire	0.009	0	-
Total	1.00	0	-
Packaging components	**Weight (kg)**	**Post-consumption recycled %**	**Biogenic material, weight (kg C)**
LDPE (film)	0.005	0	-
Wood	0.138	0	0.0627
Steel	0.022	0	-
Total	0.165	0	0.0627

Environmental impacts

Environmental indicators

Indicators	UM	Tot A1-A3	C1	C2	C3	C4	D
GWP - Fossil	kg CO_2 eq.	4.20E+00	0.00+00	9.61E-03	5.86E-01	0.00+00	-1.56E+00
GWP-biogenic	kg CO_2 eq.	0.00+00	0.00+00	6.63E-06	8.28E-03	0.00+00	-8.30E-04
GWP-luluc	kg CO_2 eq.	2.05E-03	0.00+00	3.16E-06	7.57E-04	0.00+00	3.52E-05
GWP-total	kg CO_2 eq.	3.98E+00	0.00+00	9.62E-03	5.96E-01	0.00+00	-1.56E+00
ODP	kg CFC11 eq	5.01E-08	0.00+00	1.92E-10	6.37E-09	0.00+00	-2.90E-06
AP	mol H+ eq	1.64E-02	0.00+00	3.83E-05	2.20E-03	0.00+00	-5.16E-03
EP-freshwater	kg P eq	1.39E-03	0.00+00	6.46E-07	2.92E-04	0.00+00	-5.30E-04
EP-marine	kg N eq	3.49E-03	0.00+00	1.44E-05	4.68E-04	0.00+00	-1.07E-03
EP-terrestrial	mol N eq	3.61E-02	0.00+00	1.57E-04	4.75E-03	0.00+00	-1.19E-02
POCP	kg NMVOC eq	1.40E-02	0.00+00	5.82E-05	1.55E-03	0.00+00	-5.28E-03
ADP-minerals&metals*	kg Sb eq	2.15E-05	0.00+00	3.09E-08	1.40E-06	0.00+00	-3.98E-06
ADP-fossil*	MJ	5.10E+01	0.00+00	1.36E-01	7.81E+00	0.00+00	-2.04E+01
WDP*	m^3 depriv.	1,09E+00	0.00+00	5.57E-04	3.04E-01	0.00+00	-1.95E-01
Acronyms	GWP-fossil = Global warming potential fossil fuels; 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; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption						
* Disclaimer	The results of this environmental impact indicator should be used with caution, as the uncertainties of these results are high or experience with the indicator is limited.						

Biogenic CO2 balancing has been performed manually in A1-A3 to correct the software processing error, as required by PCR Annex II.

GWP-GHG

Indicators	UM	Tot A1-A3	C1	C2	C3	C4	D
GWP-GHG	kg CO_2 eq	4.21E+00	0.00+00	9.62E-03	5.88E-01	0.00+00	-1.53E+00

Resource consumption

Indicators	UM	Tot A1-A3	C1	C2	C3	C4	D
PERE	MJ	7.78E+00	0.00+00	2.23E-03	1.30E+00	0.00+00	3.29E-01
PERM	MJ	3.78E-03	0.00+00	0.00E+00	0.00E+00	0.00+00	0.00E+00
PERT	MJ	7.78E+00	0.00+00	2.23E-03	1.30E+00	0.00+00	3.29E-01
PENRE	MJ	4.78E+01	0.00+00	1.36E-01	7.81E+00	0.00+00	-2.04E+01
PENRM	MJ	3.10E+00	0.00+00	0.00E+00	0.00E+00	0.00+00	0.00E+00
PENRT	MJ	5.09E+01	0.00+00	1.36E-01	7.81E+00	0.00+00	-2.04E+01
SM	kg	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00
RSF	MJ	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00
NRSF	MJ	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00
FW	m^3	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00	0.00+00
Acronyms	PERE = use of renewable primary energy excluding renewable primary energy resources 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 renewable primary energy excluding renewable primary energy resources used as raw materials; PENRM = use of renewable primary energy excluding renewable primary energy resources used as raw materials; PENRT = total use of - renewable primary energy-; SM = use of secondary material; FSR = use of renewable secondary fuels; FSR = use of - renewable secondary fuels; FW = use of net fresh water						

Waste production

Impact category	Units	:	C1	C2	C3	C4	D
Hazardous waste	kg	3.33E-04	0.00+00	9.15E-07	1.81E-05	0.00+00	-2.54E-04
Bulk waste	kg	6.06E-01	0.00+00	6.45E-03	4.40E-02	0.00+00	8.78E-03
Radioactive waste	kg	4.61E-05	0.00+00	4.33E-08	3.74E-05	0.00+00	1.65E-05

Output streams

Impact category	Units	A1-A3	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	0	0	0
Material for recycling	kg	0	0	0	0.85	0	0
Materials for energy recovery	kg	0	0	0	0.15	0	0
Exported energy, electricity	MJ	0	0	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0	0	0

The % deviation of the individual series included in EPD from the representative average product is as follows:

Impact category	Units	Representative average product	DUOFIT	LSN	M	MGR
Climate change - Fossil	kg CO2 eq	4.74E+00	3%	-1%	3%	2%
Climate change - Biogenic	kg CO2 eq	-2.14E-01	0%	1%	-1%	0%
Climate change - Land use and LU change	kg CO2 eq	2.80E-03	3%	-1%	4%	2%
Climate change	kg CO2 eq	4.53E+00	3%	-1%	4%	2%
Ozone depletion	kg CFC11 eq	5.65E-08	5%	2%	-2%	2%
Acidification	mol H+ eq	1.86E-02	3%	-1%	5%	2%
Eutrophication, freshwater	kg P eq	1.68E-03	2%	-2%	7%	2%
Eutrophication, marine	kg N eq	3.96E-03	3%	-2%	4%	2%
Eutrophication, terrestrial	mol N eq	4.09E-02	3%	-2%	4%	2%
Photochemical ozone formation	kg NMVOC eq	1.56E-02	4%	0%	2%	2%
Resource use, minerals and metals	kg Sb eq	2.29E-05	7%	1%	3%	4%
Resource use, fossils	MJ	5.88E+01	5%	1%	0%	3%
Water use	m3 depriv.	1.39E+00	5%	0%	4%	3%
Climate change-GWP GHG	kg CO2 eq	4.75E+00	3%	-1%	3%	2%

Release of hazardous substances during use

The product does not release hazardous substances during use.

Bibliographic references

- General Programme Instructions of the International EPD® System. Version 4.0 of 29.03.2021
- PCR 2019:14 Construction products, Version 1.3.4
- ISO 14040:2006 and ISO 14044:2006, Environmental Management - Life Cycle Assessment - Principles and Framework, Requirements and Guidelines
- EN 15804:2012+A2:2019, Sustainability of construction - Environmental Product Declarations - Framework rules for development by product category.
- “LCA Study on Nova Siria’s couplings”, Environment Park

Summary

The company

NOVA SIRIA is a leader in the custom manufacturing of mechanical couplings for the connection, repair and diversion of land and subsea pipelines. NOVA SIRIA's production range offers the most technologically and qualitatively advanced solutions available on the market: reliability, versatility and fast delivery guarantee the success of the products manufactured worldwide.
Production, which complies with the ISO 9001 standard, is characterized by a production cycle supported by advanced technologies that allow maintaining a high level of quality. NOVA MARIA's production consists of several groups of products available in various versions, characterized by a wide tolerance on the external diameters of the pipes, which allow connecting, repairing and deriving pipes with the same or different external diameters and materials.

The product

The product is a connection and repair system for pressure pipelines conveying fluids (mainly drinking water). The products are essentially composed of 4 materials: carbon steel for making the main body and the compression and connection flanges (cast iron limited to some versions and items); Carbon steel and stainless steel for the hardware; EPDM or NBR rubber gaskets for the hydraulic sealing rings; Rilsan nylon 11 polymeric anti-corrosive coating.

Declared unit

1 kg of connecting joint with associated packaging

Materials	Weight (kg)	Post consumer recycled %	Biogenic material (kg C)
Steel	0.932	0	-
Cast iron	0.017	0	-
Rubber	0.023	0	-
Surface coating	0.019	0	-
Welding wire	0.009	0	-
Total	1.00	0	-
Components of packaging	**Weight (kg)**	**Post consumer recycled %**	**Biogenic material (kg C)**
LDPE (film)	0.005	0	-
Wood	0.138	0	0.0627
Steel	0.022	0	-
Total	0.165	0	0.0627

Environmental impacts

Indicators	UM	Tot A1-A3	C1	C2	C3	C4	D
GWP - Fossil	kg CO_2 eq.	4.20E+00	0.00+00	9.61E-03	5.86E-01	0.00+00	-1.56E+00
GWP-biogenic	kg CO_2 eq.	0.00+00	0.00+00	6.63E-06	8.28E-03	0.00+00	-8.30E-04
GWP-luluc	kg CO_2 eq.	2.05E-03	0.00+00	3.16E-06	7.57E-04	0.00+00	3.52E-05
GWP-total	kg CO_2 eq.	3.98E+00	0.00+00	9.62E-03	5.96E-01	0.00+00	-1.56E+00
ODP	kg CFC11 eq	5.01E-08	0.00+00	1.92E-10	6.37E-09	0.00+00	-2.90E-06
AP	mol H+ eq	1.64E-02	0.00+00	3.83E-05	2.20E-03	0.00+00	-5.16E-03
EP-freshwater	kg P eq	1.39E-03	0.00+00	6.46E-07	2.92E-04	0.00+00	-5.30E-04
EP-marine	kg N eq	3.49E-03	0.00+00	1.44E-05	4.68E-04	0.00+00	-1.07E-03
EP-terrestrial	mol N eq	3.61E-02	0.00+00	1.57E-04	4.75E-03	0.00+00	-1.19E-02
POCP	kg NMVOC eq	1.40E-02	0.00+00	5.82E-05	1.55E-03	0.00+00	-5.28E-03
ADP-minerals&metals*	kg Sb eq	2.15E-05	0.00+00	3.09E-08	1.40E-06	0.00+00	-3.98E-06
ADP-fossil*	MJ	5.10E+01	0.00+00	1.36E-01	7.81E+00	0.00+00	-2.04E+01
WDP*	m^3 depriv.	1.09E+00	0.00+00	5.57E-04	3.04E-01	0.00+00	-1.95E-01
Acronyms	GWP-fossil = Global warming potential fossil fuels; 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; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption						
* Disclaimer	The results of this environmental impact indicator should be used with caution, as the uncertainties of these results are high or experience with the indicator is limited.						

The balancing of biogenic CO_2 was performed manually in A1-A3 to correct the software processing error, according to Annex II of the PCR.

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