Powering Business Worldwide	**Product Environmental Profile**	PEP ecopassport®



Eaton B-Line Series Hot Dip Galvanized Steel Strut Channel with Slot Holes

Representative product	B22SH-120HDG (Reference) Product Category: Strut Channel
Description of the product	Eaton B22SH-120HDG is a B-Line series slotted single metal framing channel designed for versatile support in electrical, mechanical, and industrial applications. It is made from ASTM A123 cold-formed low-carbon steel, finished with hot-dip galvanization for superior corrosion resistance. The channel measures 1.625" width x 1.625" depth x 10" length, with 12-gauge thickness. It features 9/16" x 7/8" slots spaced every 2 inches, providing flexibility for mounting and adjustments. Ideal for strut systems and bolted framing, it offers strength, durability, and ease of installation.
Homogeneous Environmental Families Covered	The PEP concerns following product offerings from Eaton B22SH series strut channel with slot holes as mentioned below: • B54SH-120GLV • B54SH-240GLV
Functional unit	To support electrical and mechanical systems in commercial and industrial applications with Hot Dip Galvanized steel, 120inch length to withstand 1.359KN uniform load with 1.40 inches deflection in beam loading and 7.04KN weight at maximum column load with end fixity factor K=1, for 20 years.
Company information	Eaton B-Line, 509 West Monroe Street Highland, IL 62249 Email: productstewardship-es@eaton.com

Constituent Materials			
Reference product mass	9.21E+00 Kg (With packaging)		
Category PEP Material	**Material constituent**	**Mass (kg)**	**% Contribution**
Metals	Steel Hot Dip Galvanized	8.26E+00	89.7%
Other	Cardboard	9.51E-01	10.3%
Total		9.21E+00	100.0%

Substance Assessment
The representative product is compliant with the EU-RoHS Directive (2011/65/EU) without exemption and the product does not contain any substance listed as Substance-of-Very-High-Concern (SVHC) on the Candidate List of the EU-REACH Regulation (1907/2006/EC).

Additional Environmental Information	
Manufacturing	The reference product is assembled at an Eaton plant in Highland, USA holding management system certifications according to ISO 14001 standards.
Distribution	Eaton is committed to minimizing weight and volume of product and packaging with focus to optimize transport efficiency.
Installation	The installation process does not require any energy consumption and there is no waste other than the obsolete product packaging generated during this step.
Use	The product does not require energy consumption during operation.
End of life	The product is treated as per default end-of-life scenario of 100% incineration without energy recovery.

Environmental Impacts	
The calculation of the environmental impacts is the result of the Product's Life Cycle Analysis in accordance with ISO 14040/44, covering the entire lifecycle, i.e., "Cradle-to-Grave" including the following life cycle phases: production, distribution, installation, use and end of life. System modelling was carried out using the commercial LCA software EIME v6.3.2-4 with database version (CODDE-2025-04) Indicators Set: PEF EF 3.1 (Compliance: PEP ed.4, EN15804+A2) v2.0	
Manufacturing Phase	The product is assembled as well as packed at Eaton plant in Highland, USA. Energy model used: United States
Distribution Phase	Distribution of the product in its packaging from the Eaton's last logistics platform to the installation place in America, United States is considered as per PCR rules.
Installation Phase	Product is installed in North America, United States. Installation of product and treatment of packaging waste are considered in this phase. There is no energy consumption for reference product.
Use Phase	Reference lifetime: 20 Years Usage profile: No Energy required in use phase.
End of life Phase	The product is treated as per default end-of-life scenario of 100% incineration without energy recovery.

Environmental Impact Indicators: Mandatory

Mandatory environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life
Climate change – total (GWP)	kg CO2 eq.	8.55E+01	7.74E+01	2.07E+00	1.81E+00	0.00E+00	4.23E+00
Climate change - fossil fuels (GWP-f)	kg CO2 eq.	8.52E+01	7.86E+01	2.07E+00	3.18E-01	0.00E+00	4.20E+00
Climate change – biogenics (GWP-b)	kg CO2 eq.	3.49E-01	-1.18E+00	8.47E-06	1.49E+00	0.00E+00	3.51E-02

Mandatory environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life
Climate change - land use and land use transformation (GWP-lu)	kg CO2 eq.	1.05E-05	7.21E-06	3.13E-06	1.62E-08	0.00E+00	1.70E-07
Ozone depletion (ODP)	kg eq. CFC-11	3.13E-06	2.61E-06	2.51E-08	1.17E-08	0.00E+00	4.84E-07
Acidification (AP)	mole of H+ eq.	3.17E-01	2.81E-01	3.27E-03	1.88E-03	0.00E+00	3.06E-02
Freshwater eutrophication (EP-fw)	kg P eq.	5.78E-04	5.63E-04	7.73E-06	4.10E-07	0.00E+00	6.73E-06
Marine aquatic eutrophication (EP-m)	kg of N eq.	6.39E-02	5.54E-02	5.93E-04	4.52E-04	0.00E+00	7.43E-03
Terrestrial eutrophication (EP-t)	mole of N eq.	6.78E-01	5.67E-01	6.50E-03	6.04E-03	0.00E+00	9.84E-02
Photochemical ozone formation (POCP)	kg of NMVOC eq.	2.08E-01	1.84E-01	2.10E-03	1.27E-03	0.00E+00	2.15E-02
Depletion of abiotic resources – elements (ADP-e)	kg eq. Sb	7.52E-04	7.50E-04	7.38E-07	4.90E-08	0.00E+00	5.77E-07
Depletion of abiotic resources - fossil fuels (ADP-f)	MJ	4.12E+03	4.00E+03	3.68E+01	5.95E+00	0.00E+00	7.77E+01
Water scarcity (WDP)	m3 of eq.. deprivation worldwide	3.00E+01	2.93E+01	7.45E-02	1.89E-02	0.00E+00	5.77E-01

Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Sum	A1-A3 - Manufacturing	A4 – Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	MJ	4.56E+01	3.95E+01	1.16E-01	5.16E-01	0.00E+00	5.44E+00
Use of renewable primary energy resources used as raw materials	MJ	2.48E+01	2.48E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	7.04E+01	6.43E+01	1.16E-01	5.16E-01	0.00E+00	5.44E+00
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	MJ	4.12E+03	4.00E+03	3.68E+01	5.95E+00	0.00E+00	7.77E+01
Use of non-renewable primary energy resources used as raw materials	MJ	2.16E+00	2.16E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Inventory flow indicators	Units	Sum	A1-A3 - Manufacturing	A4 – Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	4.12E+03	4.00E+03	3.68E+01	5.95E+00	0.00E+00	7.77E+01
Use of secondary materials	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water	m3	6.82E-01	6.67E-01	1.74E-03	4.33E-04	0.00E+00	1.34E-02
Hazardous waste disposed of	kg	2.89E+01	1.31E+01	8.66E-03	3.53E-01	0.00E+00	1.55E+01
Non-hazardous waste disposed of	kg	5.35E+00	4.51E+00	1.92E-01	4.31E-02	0.00E+00	5.98E-01
Radioactive waste disposed of	kg	2.58E-03	2.12E-03	1.52E-04	1.81E-05	0.00E+00	2.90E-04
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ by energy vector	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the product	kg of C.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the associated packaging	kg of C.	5.76E-01	5.76E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Environmental Impact Indicators: Optional

Optional Environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life
Emission of fine particles	incidence of diseases	1.87E-06	1.62E-06	2.81E-08	1.30E-08	0.00E+00	2.02E-07
Ionizing radiation, human health	kBq of U235 eq.	1.48E+01	1.31E+01	7.32E-02	1.19E-01	0.00E+00	1.49E+00
Ecotoxicity, fresh water	CTUe	7.01E+02	4.92E+02	6.04E+01	8.27E+00	0.00E+00	1.41E+02
Human toxicity, cancer effects	CTUh	2.04E-07	2.02E-07	4.06E-10	5.97E-11	0.00E+00	1.49E-09
Human toxicity, non-cancer effects	CTUh	7.35E-07	6.58E-07	7.73E-09	2.39E-09	0.00E+00	6.63E-08
Impacts related to land use/soil quality	-	8.98E-01	7.26E-01	8.86E-03	7.00E-03	0.00E+00	1.56E-01
Total use of primary energy during the life cycle	MJ	4.19E+03	4.06E+03	3.69E+01	6.47E+00	0.00E+00	8.32E+01

To evaluate the environmental impact of other products covered by this PEP, multiply the impact figures by-

Factors for Manufacturing, Distribution, Installation, Use & End-of-Life Phase:

Part Number	Phases	GWP (kg CO_2 eq.)	GWP-f (kg CO_2 eq.)	GWP-b (kg CO_2 eq.)	GWP-lu (kg CO_2 eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m^3 eq.)
B22SH-120HDG (Reference)	Manufacturing	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Distribution	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Use	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	End of life	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
B54SH-120GLV	Manufacturing	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Distribution	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Installation	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	Use	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	End of life	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
B54SH-240GLV	Manufacturing	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Distribution	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Use	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	End of life	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Verifier accreditation Number	VH53	Supplemented by	No PSR
Date of issue	11-2025	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025: 2006			
Internal	X	External	
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)			
PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 *The components of the present PEP may not be compared with components from any other program.*			
Document complies with ISO 14025: 2006 « Environmental labels and declarations. Type III environmental declarations »			