Canvas
Metal Pedestal
Storage

Environmental Product Declaration

Date of Issue: January 15th, 2021

Date of Expiration: January 15th, 2026

Product Category Rules

BIFMA PCR for Storage, UNCPC 3812

ISO 14025/14040/14044 and EN 15804

Functional Unit

0.15 m^3 of storage space maintained for a 10-year period

(1.08 storage units required to meet functional unit)

This EPD was not written to support comparative assertions. EPDs based on different PCRs or different calculation models may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results due to and not limited to the practitioner's assumptions, the source of the data used in the study, the specifics of the product modeled, and the software tool used to conduct the study.

HermanMiller

www.hermanmiller.com/contact

NSF Certified Environmental Product Declaration www.nsf.org

Canvas Metal Pedestal

Program Operator	NSF Certification LLC 789 N. Dixboro, Ann Arbor, MI 48105 www.nsf.org
Manufacturer Name and Address	Herman Miller 855 East Main Ave. PO Box 302 Zeeland, MI 49464-0302 USA
Declaration Number	EPD10510
Declared Product and Functional Unit	Canvas Metal Pedestal Storage Device with Retractable Storage Areas Functional Unit: 0.15 m^3 storage maintained for 10 years
Reference PCR and Version Number	BIFMA PCR for Storage
Product's intended Application and Use	General Office Storage
Product RSL	10 years
Markets of Applicability	North/South America, EMEA, APAC
Date of Issue	January 15th, 2021
Period of Validity	5 years from date of issue
EPD Type	Product Specific
Intended Audience	Business-to-Business, Business-to-Consumer
Range of Dataset Variability	N/A
EPD Scope	Cradle to Grave
Year of reported manufacturer primary data	2019
LCA Software and Version Number	GaBi 9.5.2.49
LCI Database and Version Number	GaBi Database, Service Pack 40
LCIA Methodology and Version Number	TRACI 2.1 CML 2001-Oct 2012
The PCR review was conducted by:	Review Panel Chaired by Dr. Thomas Gloria
This declaration was independently verified in accordance with ISO 14025: 2006. CEN Norm EN 15804 (2012) serves as the core PCR, with additional considerations from the BIFMA PCR for Storage. ☐ Internal ☒ External	Tony Favilla afavilla@nsf.org
This reference life cycle assessment was conducted in accordance with ISO 14044 and the reference PCRs:	Herman Miller Background Report for LCA/EPD Creation Tool v1.4 Matt Van Duinen - WAP Sustainability Consulting matt@wapsustainability.com
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Jack Geibig - EcoForm jgeibig@ecoform.com
References	BIFMA PCR for Storage: UNCPC 3812 ISO 14025/40/44; 2006 EN 15804:2012+A1; 2013 Herman Miller Background Report for LCA/EPD Creation Tool v1.4

Limitations:

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance of Products using EPD information shall be based on the product's use and impacts at the building level, and therefore EPDs may not be used for comparability purposes when not considering the building energy use phase as instructed under this PCR. Full conformance with the PCR allows EPD comparability only when all stages of a life cycle have been considered. However, variations and deviations are possible". Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

Canvas Metal Pedestal

Product Description

Canvas Storage is multifunctional storage that routes power and data and houses personal items and work tools. More than a place to keep your snacks, the system supports work surfaces and provides seating for colleagues who stop by to chat. Multiple material options harmonize with the rest of the Canvas Office Landscape.

Canvas Storage is designed as a kit of parts, offering a number of options to customize your workstation. These include credenzas, surfaces, screens, lateral files, towers, hutches, and various accessories allowing for a customized solution to match your needs.

Company Description
Herman Miller creates inspiring designs to help people do great things at work, for learning, for wellness, at home, wherever people are. Our designs and the designers who work with us solve real problems for people and their organizations. This way of thinking about design has led us to be recognized as an innovator in furnishings, personal work accessories, and strategic services.

Our Sustainability Goals
We will be Resource Smart, Eco-inspired, and Community Driven.

Resource Smart
- Zero Waste
- Net Zero Water
- Net Zero Energy

Eco-inspired Design
- All products designed for the environment
- All products BIFMA level 3 certified
- Closed-Loop recycling of used product

Community Driven
- All employees engaged in Earthright
- All suppliers committed to being Resource Smart

Supplier Support
At Herman Miller, we are committed to working closely with our suppliers to reduce our collective impact on the environment. We encourage our suppliers to minimize their operations' environmental impacts and require they assist us in decreasing our facilities' environmental effects.

Manufacturing Location
10201 Adams St, Holland, MI 49423, United States
1 Portal Rd, Bowerhill, Melksham, SN12 6GN, United Kingdom

Warranty
Backed by Herman Miller's 12-year, 24/7 warranty

Design for the Environment Criteria
Our commitment to corporate sustainability naturally includes minimizing the environmental impact of each of our products. Our Design for the Environment team applies environmentally sensitive design standards to both new and existing Herman Miller products, and goes beyond regulatory compliance to thoroughly evaluate new product designs in key areas:

- **Material Chemistry and Safety of Inputs**
  What chemicals are in the materials we specify, and are they the safest available?
- **Disassembly**
  Can we take products apart at the end of their useful life, to recycle their materials?
- **Recyclability**
  Do the materials contain recycled content, and more importantly, can the materials be recycled at the end of the product's useful life?
- **Life Cycle Assessment (LCA)**
  Have we optimized the product based on the entire life cycle?

Product Environmental Data
24% Recycled Content
17% Post-Consumer
7% Pre-Consumer
Up to 95% Recyclability *
*Based on availability of recycling facilities.

Environmental Certifications
BIFMA level™ 3
Indoor Advantage™ Gold

Packaging
Returnable packaging is available.

Additional information, including installation and recycling instructions, can be found at https://www.hermanmiller.com

Canvas Metal Pedestal

MATERIAL DECLARATION

Functional Unit

0.15 m^3 of general storage space maintained over a 10-year period, including packaging materials used for the final assembled product.

Reference Flow and Product Specifications

This study modeled 1.08 Canvas metal pedestal storage units (product number FM10A.22BBF2P03LSSCNCLNHCBKC) with 0.14 m^3 of storage space, arc pulls, and two drawers with a third file drawer. This storage unit is determined to be a representative product based on sales of the variations.

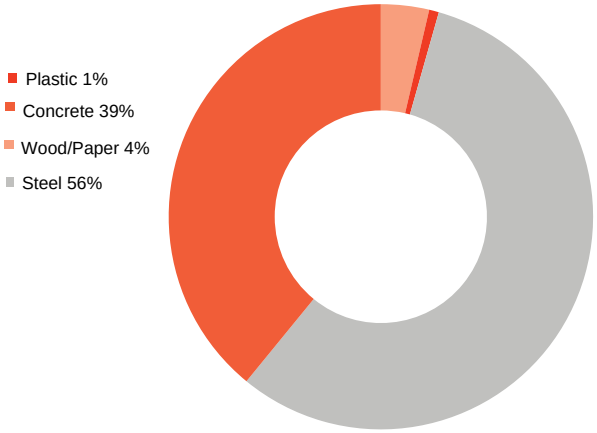
System Boundary

Cradle-to-Grave

Content Declaration

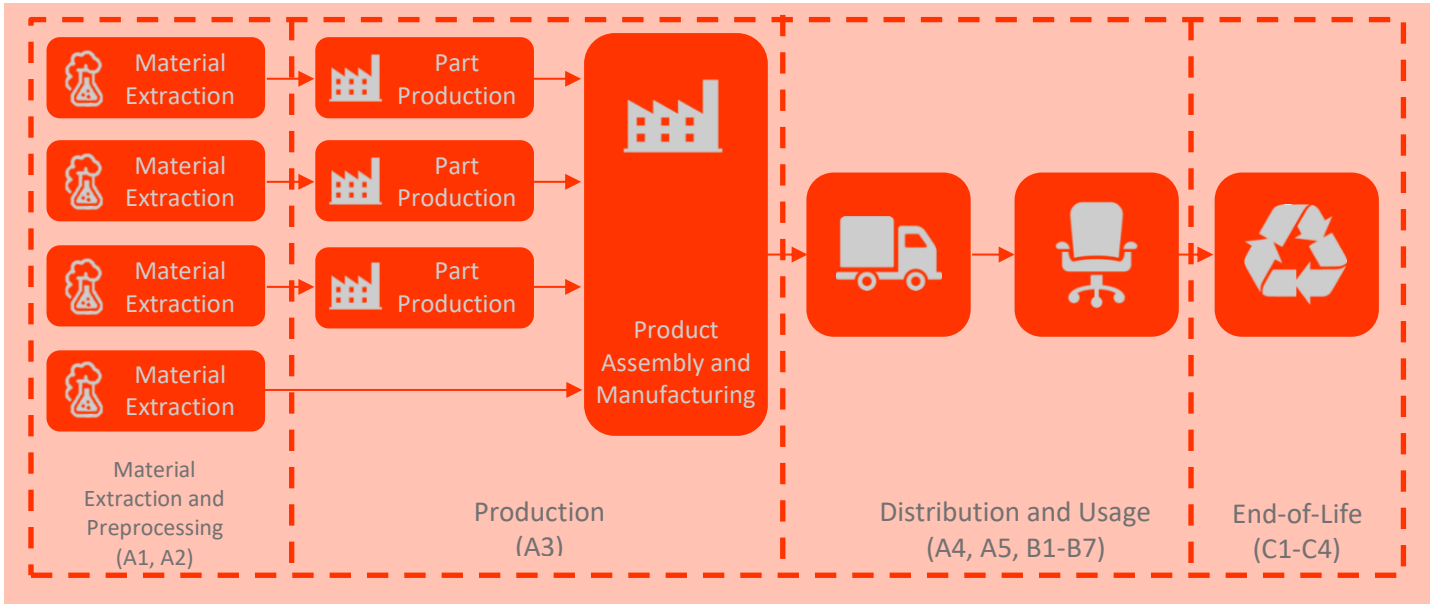
The table to the right details the materials included in the full product detailed above and summarized in the chart below. In order to achieve the functional unit, 1.08 pedestal storage units is required.

Material	Mass (kg)	Mass (%)	Resource
Steel	25.19	55%	Recycled Content
Concrete	17.42	38%	Virgin Non-renewable
Particle Board	1.63	4%	Recycled Content
Finish	0.66	1%	Virgin Non-renewable
Polypropylene (PP)	0.23	<1%	Virgin Non-renewable
Zinc	0.16	<1%	Virgin Non-renewable
Polyamide 6/6 (PA66)	0.07	<1%	Virgin Non-renewable
Other Materials	0.03	<1%	Virgin Non-renewable
Total	**45.39**	**100%**	



Packaging*	Mass (kg)	Mass (%)	Resource
Corrugate	1.63	82%	Recycled Content
Polyethylene Bag	0.11	6%	Virgin Non-renewable
PET Banding (Polyester)	0.24	12%	Virgin Non-renewable
Total	**1.98**	**100%**	

*Returnable/reusable shipping blankets also available



Overview of Life Cycle Stages

Canvas Metal Pedestal

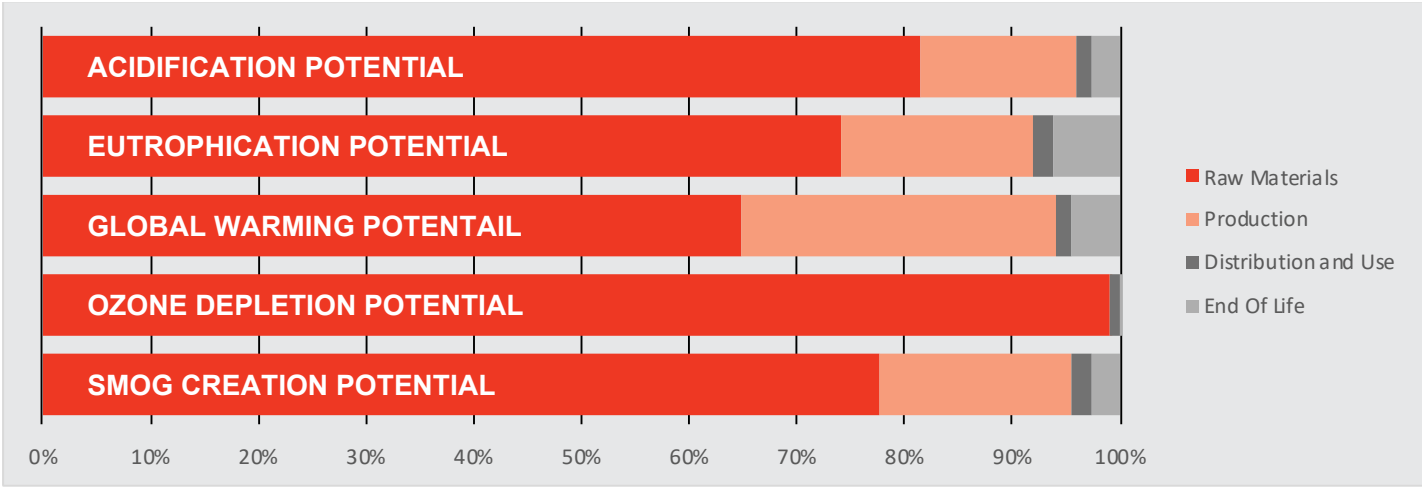
Life Cycle Impact Assessment – BIFMA PCR for United States Production

Environmental Impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using TRACI 2.1 characterization factors, as well as LCI indicators for primary energy and water usage. Results presented in this report are for 0.15 m^3 of storage maintained for 10 years. Additionally, the results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.

LCIA Impact Category	Unit	Total	Raw Material Production	Product Production	Distribution and Retail	End of Life
Acidification Potential	kg SO_2 eq	3.76E-01	3.07E-01	5.43E-02	5.61E-03	9.54E-03
Eutrophication Potential	kg N eq	2.14E-02	1.58E-02	3.83E-03	4.33E-04	1.30E-03
Global Warming Potential	kg CO_2 eq	1.22E+02	7.95E+01	3.56E+01	1.85E+00	5.59E+00
Photochemical Ozone Creation Potential (Smog)	kg O_3 eq	5.88E+00	4.57E+00	1.05E+00	1.01E-01	1.61E-01
Ozone Depletion Potential	kg CFC-11 eq	1.09E-08	1.08E-08	1.56E-14	1.08E-10	5.09E-15

LCI Impact Category	Unit	Total	Raw Material Production	Product Production	Distribution and Retail	End of Life
Primary Energy Demand (Renewable and Non-Renewable)	MJ (net cal value)	1.43E+03	7.72E+02	6.02E+02	2.36E+01	3.14E+01
Fresh Water Consumption	kg	2.35E+02	1.46E+02	6.74E+01	4.02E+00	1.76E+01

Life Cycle Impacts of Canvas Metal Pedestal



Canvas Metal Pedestal

APPENDIX: EN 15804

In addition to the previous results, impact results according to EN 15804 have been calculated using CML characterization factors, as well as LCI indicators required. Results presented in this report are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.

Modeling Assumptions

In order to comply with EN 15804, several modeling assumptions had to be altered from the previous BIFMA PCR-based results, as outlined here. The life cycle modules are aggregated differently according to the table below and Module D is included to calculate the benefits from the end-of-life scenarios including recycling materials, landfill gas capture, and waste-to-energy. Modules for which specific scenario data are not provided below were considered within the scope of study but had no relevant impact. As such, the relevant tables for these stages are not presented here.

Functional Unit

Parameter	Value
Functional Unit	0.15 m^3 of Storage
Reference Flow	1.08 storage units
Reference Service Life Required	10 years

A4: Transport to the Building Site

Parameter	Value per functional unit
Transportation Type	Diesel Truck
Fuel Consumption	0.177 kg
Distance	2253 km
Capacity Utilization	61%

A5: Installation in the Building

Parameter	Value per functional unit
Packaging Waste Produced	2.14 kg

Reference Service Life

Parameter	Value per functional unit
Reference Service Life	10 Years
Design Application Parameters	Use as indicated in product brochure and warranty
Declared Product Properties	Properties given in product description on page 4

End-of-Life

Parameter	Value per functional unit
Weight of Product Collected	48.9 kg
Weight to Recycling	10.4 kg
Weight to Energy Recovery	8.4 kg
Weight to Landfill	31.1 kg
Distance to Recycling	64 km
Distance to Energy Recovery	64 km
Distance to Landfill	64 km

Life Cycle Stages

The results are provided according to the following life cycle modules:

Module	Description	Module	Description	Module	Description
A1	Product Stage: Raw Material Supply	**B1**	Use Stage: Use	**C1**	EOL: Deconstruction
A2	Product Stage: Transport	**B2**	Use Stage: Maintenance	**C2**	EOL: Transport
A3	Product Stage: Manufacturing	**B3**	Use Stage: Repair	**C3**	EOL: Waste Processing
A4	Construction Process Stage: Transport	**B4**	Use Stage: Replacement	**C4**	EOL: Disposal
A5	Construction Process Stage: Installation	**B5**	Use Stage: Refurbishment	**D**	Benefits beyond system
		B6	Operational Energy Use		
		B7	Operational Water Use		

Canvas Metal Pedestal

LCA Results – United States Production

CML Results – United States Production – 0.15 m^3 of storage space maintained for 10 Years

Impact Category	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-elements [kg Sb eq]	6.81E-04	1.10E-07	6.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-07	0.00E+00	3.43E-08	-2.26E-04
ADP-fossil fuel [MJ]	1.14E+03	9.06E+00	1.18E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.06E+00	0.00E+00	1.96E+01	-9.59E+01
AP [kg SO_2 eq]	3.47E-01	1.40E-03	3.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-03	0.00E+00	5.14E-03	-2.58E-02
EP [kg Phosphate eq]	3.44E-02	3.75E-04	3.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.75E-04	0.00E+00	2.65E-03	-3.37E-03
GWP [kg CO_2 eq]	1.15E+02	6.39E-01	1.21E+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	6.39E-01	0.00E+00	4.95E+00	-8.63E+00
ODP [kg CFC 11 eq]	1.08E-08	6.85E-17	1.08E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.85E-17	0.00E+00	5.03E-15	-1.48E-14
POCP [kg Ethene eq]	4.06E-02	-4.62E-04	4.06E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.62E-04	0.00E+00	9.38E-04	-3.18E-03

ADP=Abiotic Depletion Potential; AP=Acidification Potential; EP=Eutrophication Potential; GWP=Global Warming Potential; ODP=Ozone Depletion Potential; POCP=Photochemical ozone creation potential

Resource Use and Waste – United States Production – 0.15 m^3 of storage space maintained for 10 Years

Impact Category	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
RPR_E [MJ]	1.55E+02	3.78E-01	1.58E+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	3.78E-01	0.00E+00	1.53E+00	-2.62E+01
RPR_M [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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RPR_T [MJ]	1.55E+02	3.78E-01	1.58E+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	3.78E-01	0.00E+00	1.53E+00	-2.62E+01
$NRPR_E$ [MJ]	1.22E+03	9.10E+00	1.26E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.10E+00	0.00E+00	2.04E+01	-9.82E+01
$NRPR_M$ [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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_T$ [MJ]	1.22E+03	9.10E+00	1.26E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.10E+00	0.00E+00	2.04E+01	-9.82E+01
SM [kg]	1.06E+01	0.00E+00	1.06E-01	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
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m^3]	2.13E-01	1.70E-03	2.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	0.00E+00	1.59E-02	-1.46E-02
HWD [kg]	1.51E-05	1.56E-07	1.55E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-07	0.00E+00	1.08E-07	-8.26E-08
NHWD [kg]	1.90E+00	6.35E-04	3.88E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.35E-04	0.00E+00	3.69E+01	-2.58E-01
RWD [kg]	2.91E-02	1.64E-05	2.94E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-05	0.00E+00	2.96E-04	-9.35E-04
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR [kg]	8.23E+00	0.00E+00	1.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	8.36E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.36E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

RPR_E=Renewable Primary Energy from Non-Materials; RPR_M =Renewable Primary Energy from Materials; RPR_T =Total Renewable Primary Energy; $NRPR_E$=Non-Renewable Primary Energy from Non-Materials; $NRPR_M$ =Non-Renewable Primary Energy from Materials; $NRPR_T$ =Total Non-Renewable Primary Energy; SM=Use of Secondary Materials; RSF=Use of Renewable Secondary Fuels; NRSF=Use of Non-Renewable Secondary Fuels; FW=Net Use of Fresh Water; HWD=Hazardous Waste Disposed; NHWD=Non-Hazardous Waste Disposed; RWD=Radioactive Waste Disposed; CRU=Components for Reuse; MFR=Materials for Recycling; MER=Materials for Energy Recovery; EE=Exported Energy