



Pedestal Files

Storage Device with Retractable Storage

Environmental Product Declaration

Date of Issue: May 12, 2020

Date of Expiration: May 12, 2025

Product Category Rule

BIFMA PCR for Storage: UNCPC 3812

Functional Unit

0.15 m³ of storage capacity maintained for 10 yrs

Products Included

700 Series
All Terrain
Connection Zone
Tattoo
U Series

Manufacturer

KI
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The PCR this EPD was based on 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, and the specifics of the product modeled. Due to the functional unit utilized, the following number of storage units are needed: 1.37 700 Series units, 1.16 All Terrain units, 1.59 Connection Zone units, 2.23 Tattoo units, 1.59 U Series units. Details on these units are contained herein.



Program Operator	NSF Certification, LLC 789 N. Dixboro, Ann Arbor, MI 48105 www.nsf.org	
Manufacturer Name and Address	KI 1330 Bellevue Street Green Bay, WI 54302	
Declaration Number	EPD10353	
Declared Product and Functional Unit	Pedestal Files 0.15 m ³ of storage capacity maintained for 10 yrs	
Reference PCR and Version Number	BIFMA PCR for Storage: UNCPC 3812	
Product's intended Application and Use	Storage Device with Retractable Storage	
Product RSL	10 years	
Markets of Applicability	North America	
Date of Issue	May 12, 2020	
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	2018	
LCA Software and Version Number	GaBi 9.2	
LCI Database and Version Number	GaBi Database Service Pack 39	
LCIA Methodology and Version Number	TRACI 2.1	
The sub-category PCR review was conducted by:	Dr. Thomas Gloria Dr. Michael Overcash Bill Stough	
This declaration was independently verified in accordance with ISO 14025: 2006. ISO 21930 serves as the core PCR. O Internal <input checked="" type="checkbox"/> External	Jenny Oorbeck joorbeck@nsf.org 	
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	Kai Wang – WAP Sustainability Consulting kai@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 	
<p>Limitations:</p> <p>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.</p> <p>Full conformance with the PCR for Products 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.</p>		



About KI

Krueger International is a world-class contract furniture manufacturer. They make ergonomic seatings, cabinets, and other furniture used by businesses, health care organizations, government agencies, and educational institutions. Established in 1941, KI started as a company able to produce their products out of scrap material available in the war time. Even today, the environmentally conscious company finds new ways to use resources wisely and innovatively and protecting the environment has been established as one of the key principles of the company.

Product Descriptions

For each of the product families below, a conservative representative product was chosen for this study based on material type and amount utilized per functional unit. Specifically, models with additional features were chosen and when several materials options were available (i.e. wood vs plastic vs metal), the material with the highest global warming potential was chosen in order to be a conservative estimate due to the market demand for embodied carbon data. Because sizing can also vary, it was determined that on a functional unit basis and combined with the feature and material choices, these models were deemed worst-case scenario. Actual material content and features can vary.

700 Series

700 Series filing and storage is more than just storage units. 700 Series is designed with features to minimize retrieval time, maximize space and store virtually anything safely and securely. Its clean style and wide variety of build and finish options enable it to be compatible with a variety of furnishings and to perfectly match the look and feel of any space. The representative product (S7P/1520MFF/CLSC/BL/CBW/KS/CP) has 2 file drawers with hanging file partitions, a counterbalance weight, casters, inset pulls, and a keyed lock.



All Terrain

All Terrain storage combines the versatility of modular design with mobile convenience to create a flexible storage system. With a broad offering of drawer pedestals, file cabinets, media centers and storage towers, All Terrain storage products can be mixed and matched to support a variety of storage needs. The representative product (ATPE1520BFL/L2/74P/4CW/SX/LWL) has a landing pad with bowed front top, two file drawers with hanging folder partition, beveled pull, and casters.



Connection Zone

Connection Zone storage supports ad hoc interaction. Credenzas and pedestals provide close-at-hand storage with optional seat pads for impromptu conversations. Multi-size lockers provide ample storage with a range of security options. The representative product (CZPDS20MBF/CM/FCM/KS/CZP) has a steel shell, two drawers, casters, a keyed lock, and a Connection Zone pull.



Tattoo

Tattoo storage provides a perfect balance of work and personal compartments for your purse, gym bag, a change of shoes, plus files and folders. It offers mobility and user-control that adapts to of-the-moment needs for privacy or interaction. Featuring an inset leg design, storage elements can be easily moved within your workspace. The representative product (TSPD1218MF/CZP/CM/FCM/KS/SCL) has casters, a large drawer with a hidden inner pencil drawer, steel shell and front, Connection Zone pulls, and a keyed lock.





U-Series

U-series storage maximizes space, making the most of small footprints without compromising functionality. U-Series is cost-effective and exceptionally efficient wherever it is used. From lower panel heights to collaborative and shared work areas, U-Series storage supports flexible and affordable planning options. The representative product (ULP20MFF/SA/KS/USP/CP) has casters, two file drawers, a counterbalance weight, a keyed lock, and a U-Series pull.



Product Specifications

The following table contains the specifications of the representative products noted above. All of the pedestal products are expected to last long than 10 years, but per the requirements of the product category rules utilized, the reference service life used for the calculations is 10 years.

	700 Series	All Terrain	Connection Zone	Tattoo	U-Series
Product Category	Storage Device with Retractable Storage				
Storage Capacity of Product [m³]	0.109	0.129	0.094	0.067	0.094
Num. of Storage Units Needed for Functional Unit	1.37	1.16	1.59	2.23	1.59
Pre-Consumer Recycled Content	56.2%	52.1%	29.5%	11.4%	12.0%
Post-Consumer Recycled Content	19.5%	7.3%	22.3%	19.8%	13.0%

Material Composition per Functional Unit

Material Type	Material Source	700 Series	All Terrain	Connection Zone	Tattoo	U-Series
Aluminum	Recycled	-	0.69 kg (1.3%)	-	-	-
EPDM	Virgin Non-Renewable	-	-	-	<0.01 kg (<0.01%)	-
High Pressure Laminate (HPL)	Recycled	-	0.25 kg (0.46%)	-	-	-
Nylon	Virgin Non-Renewable	0.02 kg (0.04%)	0.02 kg (0.03%)	0.03 kg (0.08%)	1.34 kg (2.61%)	-
Particle Board	Recycled	-	2.00 kg (3.66%)	-	-	-
Polyethylene	Virgin Non-Renewable	-	0.25 kg (0.46%)	-	-	-
Polypropylene	Virgin Non-Renewable	0.06 kg (0.11%)	-	0.37 kg (1.07%)	0.52 kg (1.01%)	-
Steel	Virgin Non-Renewable	36.7 kg (75.0%)	31.3 kg (57.3%)	10.0 kg (28.8%)	35.0 kg (68.4%)	12.3 kg (65.4%)
Steel	Recycled	12.2 kg (24.9%)	20.2 kg (36.9%)	24.3 kg (70.0%)	14.3 kg (27.9%)	6.50 kg (34.6%)
Total		48.98 kg	54.60 kg	34.70 kg	51.16 kg	18.80 kg

Life Cycle Assessment Results



All results are given per functional unit, which is 0.15 m³ of storage over 10 years. Environmental Impacts were calculated using the GaBi software platform. Impact results have been calculated using TRACI 2.1 characterization factors shown below.

Acronym	Description	Acronym	Description
AP	Acidification potential of soil and water	OPD	Depletion of stratospheric ozone layer
EP	Eutrophication potential	POCP	Photochemical ozone creation potential
GWP	Global warming potential		
LCI Indicators			
PED	Total use of renewable and non-renewable primary energy resources	FW	Net use of fresh water

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks. All results are provided for the representative product previously described.

Impact Category	Total	Material Acquisition and Pre-Processing	Production	Distribution, Storage, and Use	End-of-Life
700 Series					
AP [kg SO ₂ eq]	5.18E-01	3.58E-01	1.13E-01	3.91E-02	8.03E-03
EP [kg N eq]	3.41E-02	1.79E-02	1.14E-02	3.27E-03	1.49E-03
GWP [kg CO ₂ eq]	1.94E+02	1.29E+02	5.29E+01	8.65E+00	3.23E+00
ODP [kg CFC 11 eq]	1.73E-10	1.17E-10	5.61E-11	-4.58E-14	-9.00E-14
POCP [kg O ₃ eq]	8.40E+00	5.18E+00	2.19E+00	9.16E-01	1.11E-01
PED [MJ]	3.27E+03	1.84E+03	1.28E+03	1.24E+02	2.94E+01
FW [kg]	2.15E+05	5.98E+04	1.55E+05	3.56E+02	2.26E+02
All Terrain					
AP [kg SO ₂ eq]	6.31E-01	4.55E-01	1.24E-01	4.28E-02	9.43E-03
EP [kg N eq]	4.00E-02	2.26E-02	1.19E-02	3.58E-03	1.93E-03
GWP [kg CO ₂ eq]	2.23E+02	1.49E+02	6.02E+01	9.46E+00	4.33E+00
ODP [kg CFC 11 eq]	2.55E-09	2.50E-09	4.55E-11	-5.00E-14	-1.02E-13
POCP [kg O ₃ eq]	9.97E+00	6.46E+00	2.38E+00	1.00E+00	1.28E-01
PED [MJ]	3.76E+03	2.20E+03	1.39E+03	1.36E+02	3.30E+01
FW [kg]	2.82E+05	1.09E+05	1.72E+05	3.89E+02	2.79E+02
Connection Zone					
AP [kg SO ₂ eq]	3.70E-01	2.49E-01	8.45E-02	2.92E-02	7.42E-03
EP [kg N eq]	2.67E-02	1.33E-02	9.51E-03	2.44E-03	1.42E-03
GWP [kg CO ₂ eq]	1.23E+02	7.86E+01	3.52E+01	6.44E+00	3.08E+00
ODP [kg CFC 11 eq]	2.09E-10	1.40E-10	6.88E-11	-3.41E-14	-6.61E-14
POCP [kg O ₃ eq]	6.52E+00	4.11E+00	1.64E+00	6.82E-01	8.85E-02
PED [MJ]	2.07E+03	9.74E+02	9.78E+02	9.27E+01	2.18E+01
FW [kg]	1.52E+05	4.10E+04	1.11E+05	2.65E+02	1.79E+02



Impact Category	Total	Material Acquisition and Pre-Processing	Production	Distribution, Storage, and Use	End-of-Life
Tattoo					
AP [kg SO ₂ eq]	6.83E-01	5.12E-01	1.20E-01	4.12E-02	9.79E-03
EP [kg N eq]	4.53E-02	2.76E-02	1.23E-02	3.45E-03	1.96E-03
GWP [kg CO ₂ eq]	2.42E+02	1.74E+02	5.46E+01	9.11E+00	4.34E+00
ODP [kg CFC 11 eq]	3.97E-10	3.31E-10	6.62E-11	-4.82E-14	-9.68E-14
POCP [kg O ₃ eq]	1.19E+01	8.47E+00	2.31E+00	9.65E-01	1.25E-01
PED [MJ]	3.68E+03	2.17E+03	1.36E+03	1.31E+02	3.14E+01
FW [kg]	2.31E+05	6.86E+04	1.62E+05	3.75E+02	2.65E+02
U-Series					
AP [kg SO ₂ eq]	1.80E-01	1.24E-01	3.99E-02	1.38E-02	1.77E-03
EP [kg N eq]	1.05E-02	5.88E-03	3.15E-03	1.15E-03	3.10E-04
GWP [kg CO ₂ eq]	7.34E+01	4.75E+01	2.21E+01	3.04E+00	6.88E-01
ODP [kg CFC 11 eq]	-3.05E-12	-1.79E-14	-2.99E-12	-1.61E-14	-3.28E-14
POCP [kg O ₃ eq]	3.20E+00	2.09E+00	7.56E-01	3.22E-01	3.53E-02
PED [MJ]	1.02E+03	5.39E+02	4.32E+02	4.38E+01	1.05E+01
FW [kg]	8.31E+04	2.47E+04	5.82E+04	1.25E+02	7.46E+01

Life Cycle Assessment Interpretation

A dominance analysis was performed for all of the products and the majority of the impacts associated with KI's Pedestal Files are aggregated in the material acquisition and pre-processing phase of the life cycle of the product. The exception to this is the production phase which accounts for the majority of the fresh water usage. An additional dominance analysis was performed within the raw materials and pre-processing stage and the steel materials dominate these impacts, primarily due to the amount of steel utilized in the products and the high environmental impact per kilogram relative to the other materials.

References

1. Life Cycle Assessment of KI Pedestal Files, v1.1. April 2020.
2. Product Category Rule for Environmental Product Declarations. BIFMA PCR for Storage: UNCPD 3812. Expiration June 10, 2020.
3. ISO 14044: 2006 Environmental Management – Life cycle assessment – Requirements and Guidelines.
4. ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations – Principles and Procedures.