Ology®

EMEA

Acerca de este producto

Ology® es un escritorio de altura ajustable disponible para uno o dos ocupantes. El ajuste de altura está diseñado pensando en la salud y bienestar del usuario permitiendo la movilidad y cambio de posición durante el uso.

La referencia evaluada es 1.28 m^2 para lo cual se necesita 0.781 unidades para cubrir la unidad funcional de un metro cuadrado de superficie física durante un periodo de 10 años.

Date of Issue: 14 de noviembre de 2024
Date of Expiration: 14 de noviembre de 2029

Acerca de este documento

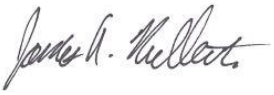
Esta declaración describe la Evaluación del Ciclo de Vida del escritorio Ology® para uno y dos ocupantes producida para el mercado EMEA por Steelcase Inc.Esta declaración describe la Evaluación del Ciclo de Vida de Steelcase Inc. en Alemania. La evaluación se realiza de acuerdo con las normas ISO 14040 (2006), 14044 (2006) y 14025 (2006), EN 15804+A2, y BIFMA PCR for Tables: UNCPC 3812 para generar una declaración ambiental para industria.

Más información

- La descripción general de la filosofía medioambiental y los compromisos de Steelcase.
- Encuentre detalles del producto y certificaciones de sostenibilidad en la página del producto en steelcase.com.
- Consulte nuestra garantía de producto .
- Para preguntas o consulta relacionada con la declaración escriba al correo epd@steelcase.com

Esta EPD es una traducción de la EPD en inglés verificada por NSF. Ha sido traducido al español por Steelcase y no verificado por separado de la versión en inglés.

RESUMEN DE LA EVALUACIÓN

Comisionado de la declaración	Steelcase® Inc
Dirección Corporativa	901 44th Street SE Grand Rapids, Michigan 49508-7594 United States
Grupo de productos	Mesas
Nombre del producto	Ology®
Uso previsto del producto	Escritorio
Vida útil de referencia del producto	10 years
Estándares de referencia	ISO 14025, ISO 14040, ISO 14044, EN 15804+A2
Alcance de la EPD	Cuna a la tumba y Module D
Número de EPD	EPD10957
Fecha de emisión	14 de noviembre de 2024
Fecha de vencimiento	14 de noviembre de 2029
Tipo de declaración	Producto especifico
Cobertura de productos	Ology Desk and Bench para el mercado de EMEA
Audiencia prevista	Industria (B2B)
Año datos reportados por el fabricante	2023
Unidad Funcional	Un metro cuadrado de superficie física para 10 años de vida
Mercados/regiones aplicables	EMEA
Software ACV y versión de base de datos	GaBi 10.6.2.9; GaBi database, 2022.2
Metodología LCIA y número de versión.	TRACI 2.1, EN15804+A2 (EF 3.1)
Administrador del programa	NSF Certification LLC 789 N. Dixboro, Ann Arbor, MI 48105 www.nsf.org
Referencia PCR y número de versión	BIFMA PCR para mesas: UNCPC 3812 (BIFMA PCR, 2022)
Verificador de PCR	Panel de revisión presidido por el Dr. Thomas Gloria
Verificación de la declaración	Revisión externa realizada por:  Jim Mellentine, Thrive ESG Esta declaración y su evaluación del ciclo de vida se verificaron de forma independiente de acuerdo con las normas ISO 14040 (2006), 14044 (2006) y 14025 (2006), BIFMA PCR para asientos UNCPC 3811 (2020) y EN 15804+A2.
Verificador del LCA	External review conducted by:  Jim Mellentine, Thrive ESG The product Life Cycle Assessment was conducted in accordance with ISO 14044, EN 15804+A2, and the reference PCR.
Descargo de responsabilidad	The PCR this EPD was based on was written to determine the potential environmental impacts of a table product from cradle to grave and module D. It 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 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.

PARÁMETROS DE EVALUACIÓN

Functional unit

El escritorio ocupa 1.28 m^2 de espacio físico, para lo cual se necesita 0.78 unidades de escritorio para un usuario y 0.37 unidades de escritorio de doble ocupación para cubrir la unidad funcional de un metro cuadrado de superficie física durante un periodo de 10 años.

Product scope

Para esta EPD se modeló un escritorio Ology® ocupación individual (producto número N111052700 [1600x800mm]), y Ology® ocupación doble (producto número N1H105A700 [1600x1700mm]) con superficie rectangular y base telescópica para altura extendida.

Los resultados presentados en las páginas siguientes corresponden al escritorio Ology® de ocupación individual y doble, producido en Steelcase Rosenheim, Alemania.

El escritorio Ology® N111052700 subcategoría individual, esta diseñado para un usuario a la vez.
El escritorio Ology® N1H105A700 subcategoría doble, está diseñado para dos usuarios a la vez.

Objetivo y alcance de la evaluación

Se evaluaron los posibles impactos ambientales de Ology® incluyendo su empaque a lo largo de todo su ciclo de vida, incluida la extracción de material, producción, transporte, uso y final de vida del producto. A falta de información primaria, se utilizó la base de datos GaBi para los datos secundarios.

Las etapas del ciclo de vida incluidas en esta evaluación siguen el PCR de BIFMA para Mesas: UNCPC 3812 y el formato de informe de EVS-EN 15804:2012+A2:2019 Sostenibilidad de las obras de construcción – Declaraciones ambientales de producto – reglas básicas para la categoría de producto de construcción productos. Se evalúan la adquisición de material y el preprocesamiento (incluido el transporte), la producción, la distribución, el uso y el final de la vida útil del producto de asiento.

La siguiente tabla presenta el uso de energía en kW-h por 1 hora de uso para 1 usuario. Una hora de uso incluye ajustar la mesa desde la altura mínima hasta la altura máxima y luego devolver el producto a la altura mínima. El consumo máximo de energía promedio por estación de trabajo supone 4 ciclos por día para levantar la parte superior de la posición más baja a la más alta y regresar a la más baja. Los valores fueron calculados para 1 usuario, 10 años, 260 días laborables para un escritorio.

Energía usada kW-hr/ciclo	Energia usada 10-anos kW-hr
0.00146	15.2

Límite de evaluación

La Evaluación del Ciclo de Vida considera el ciclo de vida completo del producto como se describe aquí, desde el principio hasta el final. Las etapas del ciclo de vida incluidas en esta evaluación siguen el PCR de BIFMA para mesas: UNCPC 3812. Debido a que el PCR BIFMA sirve como PCR central, las etapas y fases del ciclo de vida se presentan primero de acuerdo con el PCR para mesas y luego se informan adicionalmente mediante los módulos de ciclo de vida EN 15804+A2.

		Escenario	Estado
	***Desde la cuna hasta la puerta de entrada*** **ADQUISICIÓN DE MATERIALES** Extracción de materia prima, preprocesamiento y transporte de materiales a proveedores.	**A1.** Suministro de materia prima	✓
		A2. Transporte	✓
	***Puerta a puerta*** **PROCESO DE PRODUCCIÓN** Fabricación externa e interna de productos, materiales auxiliares, piezas, embalajes.	**A3.** Fabricación	✓
	***Puerta a la tumba*** **DISTRIBUCIÓN, USO Y FIN DE VIDA** Distribución de productos, instalación, uso y fin de vida.	**A4.** Transporte	✓
		A5. Instalación	✓
		B1. Uso	✓
		B2. Mantenimiento/limpieza	✓
		B3. Reparar	✓
		B4. Reemplazo	✓
		B5. Rehabilitación	✓
		B6. Uso operativo de energía.	✓
		B7. Uso operativo del agua.	✓
		C1. Desmontaje	✓
		C2. Transporte	✓
		C3. Procesamiento de residuos	✓
		C4. Desecho	✓
	Beneficios después del uso	**D.** Reutilización/recuperación	✓
		Stage	**Status**

MATERIALES

A continuación se presentan información de la composición del producto y el empaque, el contenido de material reciclado y el estimado de reciclabilidad de los materiales para la configuración usuario individual Ology® N111052700 - 1600x800, con base T, superficie rectangular, altura ajustable extendida con control manual y bandeja de soporte para cables.

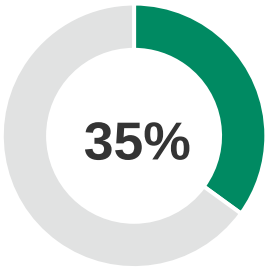
Composicion del producto

Material	Peso (kg)	Peso (%)	Tipo de recurso
Steel	16.435	46.84 %	Reciclado, Virgen No renovable
Melamine and particleboard	16.297	46.45%	Reciclado, Virgen Renovable
Electronic components	0.813	2.32%	Virgin No-renovable
PA6 and PA66 with/without filler	0.599	1.71%	Virgin Non-renewable
ABS	0.320	0.91%	Virgin Non-renewable
PP	0.088	0.25%	Virgin Non-renewable
POM	0.067	0.19%	Virgin Non-renewable
PC	0.317	0.90%	Virgin Non-renewable
Other	0.149	0.42%	Virgin Non-renewable
Total	35.086	100%	

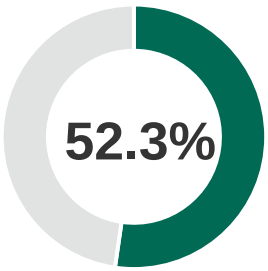
Product packaging composition

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	2.046	54.77%	Recycled, Virgin Non-renewable
PE	1.666	44.58%	Non-renewable
PE foam	0.024	0.65%	Non-renewable
Total	3.736	100%	

Product recycled content* and recyclability** summary



TOTAL RECYCLED CONTENT *



RECYCLABILITY BY WEIGHT**

*Total recycled content based on supplier's data. The source of recycled content of various materials could be either post-industrial or post-consumer based on market availability. Packaging excluded.

**Recyclability: this recyclability rate is the maximum amount of the product that is recyclable, based on the availability of recycling facilities in the specified regions and the ability of the product to be disassembled. Note that, per the requirements of the PCR, the end-of-life results presented in this EPD were calculated using the US EPA's recycling rates within the 2020 Municipal Solid Waste Report for parts that can be disassembled. Packaging excluded.

RESULTS

Results for one Ology® desk (N111052700) - 1600x800 height-adjustable with rectangular top and extended height adjustment range are shown in the subsequent pages.

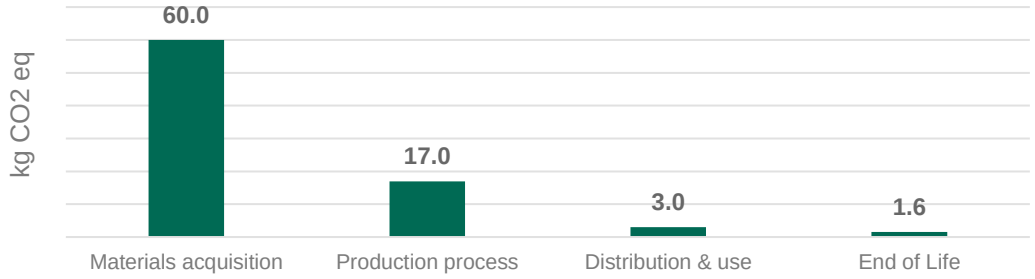
Life cycle impact by category and stage

Environmental impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using TRACI 2.1, IPCC AR6 characterization factors, and ISO 21930 LCI indicators for primary energy and water usage. Results presented in this report are for one square meter of physical floor space for one occupant 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.

		Life cycle stages				
		A1–A2	A3	A4-B7	C1-C4	
	Unit	**Materials acquisition**	**Production process**	**Distribution & Use**	**End of life**	*Totals*
***Global warming potential** (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	6.00E+01	1.70E+01	3.03E+00	1.55E+00	8.15E+01
***Acidification** Emissions that increase the acidity of the environment due to various chemical reactions and/or biological activity, or by natural circumstances.	kg SO2 eq	2.37E-01	3.43E-02	1.03E-02	7.27E-03	2.89E-01
***Photochemical ozone creation (Smog)** Through various chemical reactions, which occur between nitrogen oxides (NOx) and volatile organic compounds (VOCs) in sunlight.	kg O3 eq	3.35E+00	5.66E-01	2.28E-01	5.17E-02	4.19E+00
***Eutrophication** Enrichment of an aquatic ecosystem with nutrients (nitrates, phosphates) that accelerate biological productivity and an undesirable accumulation of algal biomass.	kg N eq	2.60E-03	5.96E-03	1.04E-03	1.49E-03	1.11E-02
***Ozone depletion** Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	6.33E-08	3.35E-12	1.25E-14	8.47E-11	6.34E-08
Primary energy demand Energy consumption at the source.	MJ	1.35E+03	4.79E+02	2.69E+01	8.81E+00	1.86E+03
Net freshwater usage Freshwater used and otherwise not recoverable.	kg	4.94E+01	7.23E+02	8.98E-02	5.75E-03	7.72E+02
Renewable primary resources used as an energy carrier First use materials from renewable sources with energy content used as a fuel.	MJ	8.89E+01	7.39E+01	1.30E+00	1.55E+00	1.66E+02
Renewable primary resources used as material First use materials from renewable sources with energy content used as a material	MJ	28.65625	2.87E+01	0.00E+00	0.00E+00	5.73E+01
Non-renewable primary resources used as an energy carrier First use materials from non-renewable sources with energy content used as a fuel	MJ	7.59E+02	2.69E+02	2.56E+01	7.25E+00	1.06E+03
Non-renewable primary resources used as material First use materials from non-renewable sources with energy content used as a material	MJ	6.58E+01	3.93E+01	0.00E+00	0.00E+00	1.05E+02
Recovered electrical energy (EEE) Electrical energy recovered from disposal of waste in previous systems	MJ	0.00E+00	3.88E+00	1.70E+00	1.92E+00	7.49E+00
Recovered thermal energy (EET) Thermal energy recovered from disposal of waste in previous systems	MJ	0.00E+00	1.41E+00	2.66E+00	2.09E+00	6.16E+00

*Methods: TRACI 2.1, IPCC AR6

Global warming potential summary



81.5 kg total CO_2-eq footprint

Life cycle resource consumption & waste summary

Additionally, results have been calculated using LCIA methodologies for core environmental impact categories specified in EN 15804+A2, as well as LCI indicators required by EN15804+A2. The results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.

		Product Stage	Construction Stage		Use Stage							End of Life			Benefits and Loads Beyond the System Boundary
	Unit	A1–A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Climate change, total corrected	kg CO2 eq	5.89E+01	1.81E+00	1.01E+01	0	4.33E-05	0	0	0	4.58E+00	0	0	2.94E-02	5.36E+00	1.56E+02	-1.29E+01
Climate change, fossil	kg CO2 eq	7.66E+01	1.82E+00	7.54E-01	0	4.03E-05	0	0	0	4.54E+00	0	0	5.09E-02	3.67E-01	2.47E-01	-1.58E+01
Climate change, biogenic	kg CO2 eq	9.22E-01	0.00E+00	8.53E+00	0	3.01E-06	0	0	0	4.08E-02	0	0	0.00E+00	4.61E+00	1.55E+02	2.90E+00
Climate change, land use and land use change	kg CO2 eq	3.37E-02	1.00E-03	2.33E-04	0	2.78E-08	0	0	0	6.90E-04	0	0	2.81E-05	-4.11E-05	9.71E-04	-3.07E-02
Ozone depletion	kg CFC-11 eq	6.10E-08	2.67E-13	3.61E-13	0	2.66E-16	0	0	0	1.03E-10	0	0	7.46E-15	6.15E-11	7.59E-13	-3.13E-11
Acidification	Mole of H+ eq	3.44E-01	1.03E-02	6.06E-04	0	1.00E-07	0	0	0	8.78E-03	0	0	1.74E-04	4.58E-04	4.20E-03	-1.38E-01
Eutrophication, freshwater	kg P eq.	6.05E-04	9.12E-06	2.57E-05	0	3.51E-09	0	0	0	1.88E-05	0	0	2.55E-07	-9.76E-08	2.59E-05	-2.28E-04
Eutrophication, marine	kg N eq	5.57E-02	4.97E-03	2.33E-04	0	3.61E-08	0	0	0	2.19E-03	0	0	8.48E-05	2.35E-04	1.66E-03	-1.16E-02
Eutrophication, terrestrial	Mole of N eq	7.38E-01	5.48E-02	2.17E-03	0	2.53E-07	0	0	0	2.29E-02	0	0	9.36E-04	2.74E-03	1.61E-02	-1.15E-01
Photochemical ozone formation, human health	kg NMVOC eq	2.15E-01	1.01E-02	7.28E-04	0	6.99E-08	0	0	0	5.80E-03	0	0	1.67E-04	6.22E-04	2.40E-03	-3.92E-02
Resource use, mineral and metals**	kg Sb eq	1.12E-03	2.39E-07	6.44E-09	0	2.88E-12	0	0	0	8.50E-07	0	0	6.63E-09	-5.84E-08	1.73E-08	-4.95E-03
Resource use, fossils**	MJ	1.23E+03	2.40E+01	1.65E+00	0	7.06E-04	0	0	0	9.53E+01	0	0	6.76E-01	2.50E+00	4.07E+00	-1.83E+02
Water use**	m3 world equiv	2.62E+01	1.07E-01	9.34E-02	0	1.29E-02	0	0	0	1.26E+00	0	0	3.00E-03	2.92E-01	3.49E-02	-5.46E+00
Use of renewable primary energy (PERE)	MJ	5.60E+02	1.05E+00	2.46E-01	0	1.59E-02	0	0	0	6.89E+01	0	0	2.94E-02	9.26E-01	5.99E-01	-6.26E+01
Primary energy resources used as raw materials (PERM)	MJ	2.87E+01	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00

		Product Stage	Construction Stage		Use Stage							End of Life			Benefits and Loads Beyond the System Boundary
	Unit	A1–A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Total use of renewable primary energy resources (PERT)	MJ	5.89E+02	1.05E+00	2.46E-01	0	1.59E-02	0	0	0	6.89E+01	0	0	2.94E-02	9.26E-01	5.99E-01	-6.26E+01
Use of non-renewable primary energy (PENRE)	MJ	1.13E+03	2.40E+01	1.65E+00	0	7.06E-04	0	0	0	9.53E+01	0	0	6.76E-01	2.50E+00	4.07E+00	-1.84E+02
Non-renewable primary energy resources used as raw materials (PENRM)	MJ	1.05E+02	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT)	MJ	1.24E+03	2.40E+01	1.65E+00	0	7.06E-04	0	0	0	9.53E+01	0	0	6.76E-01	2.50E+00	4.07E+00	-1.84E+02
Input of secondary material (SM)	kg	1.92E+01	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels (RSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of nonrenewable secondary fuels (NRSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Recovered energy (RE)	MJ	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW)	m3	7.10E-01	3.49E-03	2.27E-03	0	3.00E-04	0	0	0	5.27E-02	0	0	9.76E-05	6.03E-03	1.02E-03	-6.16E-01
Hazardous waste disposed (HWD)	kg	2.65E-07	3.23E-09	4.59E-10	0	3.34E-13	0	0	0	1.38E-07	0	0	8.97E-11	2.22E-09	9.79E-10	-2.14E-05
Non-hazardous waste disposed (NHWD)	kg	7.39E+00	2.38E-03	1.72E+00	0	9.35E-05	0	0	0	7.86E-02	0	0	6.66E-05	1.68E-01	1.11E+01	-2.26E+00
Radioactive waste disposed (RWD)	kg	1.54E-02	7.22E-05	2.83E-05	0	2.64E-08	0	0	0	1.52E-02	0	0	2.00E-06	2.01E-04	5.45E-05	-2.14E-03
Materials for recycling (MFR)	kg	2.37E+00	0.00E+00	1.54E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	7.00E+00	0.00E+00	0.00E+00
Exported electrical energy (EEE)	MJ	3.88E+00	0.00E+00	1.70E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	1.92E+00	0.00E+00	0.00E+00
Exported thermal energy (EET)	MJ	1.41E+00	0.00E+00	2.66E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	2.09E+00	0.00E+00	0.00E+00
Components for re-use (CRU)	kg	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for energy recovery (MER)	kg	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon removal in product (BCRP)	kg	4.43E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon release in product (BCEP)	kg	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	4.43E+00	0.00E+00

		Product Stage	Construction Stage		Use Stage							End of Life			Benefits and Loads Beyond the System Boundary
	Unit	A1–A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Biogenic carbon removal in packaging (BCRK)	kg	3.23E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon emission packaging (BCEK)	kg	0.00E+00	0.00E+00	3.23E+00	0	0.00E+00	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulate matter emissions (PM)	Disease incidence	7.70E-06	9.56E-08	6.02E-09	0	1.77E-12	0	0	0	7.34E-08	0	0	6.29E-09	3.68E-08	-1.20E-06	6.29E-09
Ionizing human radiation (IRP)*	kBq U235 eq.	3.22E+00	6.10E-03	4.01E-03	0	4.02E-06	0	0	0	2.51E+00	0	0	3.55E-02	7.32E-03	-1.09E-01	3.55E-02
Eco-toxicity freshwater (ETP-fw)**	CTUe	2.35E+03	1.87E+01	2.11E+00	0	1.11E-03	0	0	0	2.76E+01	0	0	3.80E-01	1.42E+01	-8.13E+01	3.80E-01
Human toxicity - Cancer (HTP-c)**	CTUh	5.76E-06	3.21E-10	4.25E-11	0	2.61E-14	0	0	0	1.55E-09	0	0	2.79E-11	1.54E-10	-1.04E-08	2.79E-11
Human toxicity - noncancer (HTP-nc)**	CTUh	6.20E-04	7.32E-09	2.30E-09	0	1.93E-12	0	0	0	2.38E-08	0	0	6.22E-10	3.64E-09	-4.36E-07	6.22E-10
Land use related impacts / soil quality (SQP)**	n/a	2.48E+02	4.60E+00	2.66E-01	0	1.08E-04	0	0	0	4.01E+01	0	0	4.53E-01	7.10E-01	-1.49E+02	4.53E-01

B6 results are for one table of the bench for10 years.

* This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

** The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Module D: *20% of recycled materials were assumed to be available for subsequent use and offset and equivalent number of primary materials. Recovered energy was assumed to be in the form of electrical energy and thermal heat from the average European-28 electricity grid mix to consumer.*

Functional Unit

Parameter	Value
Declared unit	1m2 of table for a 10-year period
Number of occupants	1
Reference service life required	10 years

A4: Transport to the building site

Parameter	Value per functional unit	Value per functional unit
Transportation type	Truck	Ship
Fuel consumption (l/km)	0.42 diesel	130 heavy fuel oil
Distance	761 km	315 km
Capacity utilization	67%	53%
Capacity utilization volume factor	=1	=1
Weight of product (kg)	35.086	
Volume (m^3)	1.6	

A5: Installation in the building

Parameter	Value per functional unit
Packaging waste for recycling	3.736 kg
Installation Assumptions	No product waste, Installed with hand tools.

B1: Use

Parameter	Value per functional unit
There are no emissions related to the expected use of this product.	

B2: Maintenance

Parameter	Value per functional unit
Maintenance Process	Cleaning with soap and water
Maintenance cycle	0
Ancillary Materials for maintenance (kg/cycle)	0
Waste materials resulting from maintenance (kg)	0
Net fresh water consumption during maintenance (m^3)	0.000030
Energy input during maintenance (kWh)	0

Reference service life (RSL)

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 3
Indoor environment	Typical office and home environment
Use conditions	Typical office and home use

B3: Repair

Parameter	Value per functional unit
Repair process	No repairs are expected for this product
Inspection process	No repairs are expected for this product
Repair cycle (#/RSL)	0
Ancillary materials (kg)	0
Waste materials from repair (kg)	0
Net freshwater consumption during repair (m^3)	0
Energy input during repair (kWh)	0

B4: Replacement

Parameter	Value per functional unit
Replacement cycle (#/RSL)	0
Energy input during replacement (kWh)	0
Exchange of worn parts during the products life cycle (kg)	0

B5: Refurbishment

Parameter	Value per functional unit
Refurbishment process	No refurbishment is expected for this product
Refurbishment cycle (#/RSL)	0
Energy input during refurbishment (kWh)	0
Material input for refurbishment (kg)	0
Waste material resulting from refurbishment (kg)	0

B6 and B7: Use of energy and Use of Water

Parameter	Value per functional unit
Ancillary materials (kg)	0
Net freshwater consumption (m^3)	0
Power output of equipment (kW-hr)	0.00146
Characteristic performance	n/a

C1-C4: End-of-life

Parameter	Value per functional unit
Weight of product collected	35.086 kg
Weight to recycling	7.02 kg
Weight to energy recovery	5.61 kg
Weight to landfill	22.46 kg
Distance to recycling	32.2 km
Distance to energy recovery	32.2 km
Distance to landfill	32.2 km

MATERIALS

The product composition, packaging composition, recycled content, and recyclability visuals below relate specifically to the Ology® Bench - (N1H105A700) - 1600x1700mm with dual rectangular top, T legs, extended height adjustment range, up and down switch control, and cable tray support.

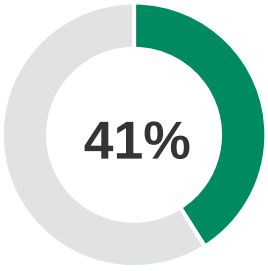
Product composition

Material	Weight (kg)	Weight (%)	Resource Type
Steel	26.687	60.72%	Recycled, Virgin Non-renewable
Melamine and particleboard	15.339	34.90%	Recycled, Virgin Non-renewable
PC	0.813	0.68%	Virgin Non-renewable
Electronic components	0.765	1.74%	Virgin Non-renewable
Nylon (PA6 and PA66)	0.372	0.85%	Virgin Non-renewable
ABS	0.303	0.69%	Virgin Non-renewable
PP	0.083	0.19%	Virgin Non-renewable
POM	0.072	0.16%	Virgin Non-renewable
Other	0.092	0.08%	Virgin Non-renewable
Total	43.952	100%	

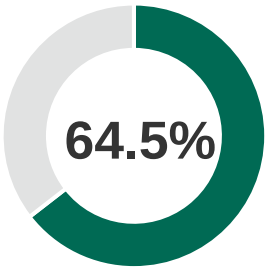
Product packaging composition

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	1.180	42.76%	Renewable
PE	1.568	56.82%	Non-renewable
Plastic/foam	0.011	0.41%	Non-renewable
Total	2.759	100%	

Product recycled content* and recyclability** summary



TOTAL RECYCLED CONTENT *



RECYCLABILITY BY WEIGHT**

*Total recycled content based on supplier's data. The source of recycled content of various materials could be either post-industrial or post-consumer based on market availability. Packaging excluded.

**Recyclability: this recyclability rate is the maximum amount of the product that is recyclable, based on the availability of recycling facilities in the specified regions and the ability of the product to be disassembled. Note that, per the requirements of the PCR, the end-of-life results presented in this EPD were calculated using the US EPA's recycling rates within the 2020 Municipal Solid Waste Report for parts that can be disassembled. Packaging excluded

RESULTS

Results for one Ology® Bench (N1H105A700) - 1600x1700mm dual-sided bench, and extended height adjustment range. is shown on the subsequent pages.

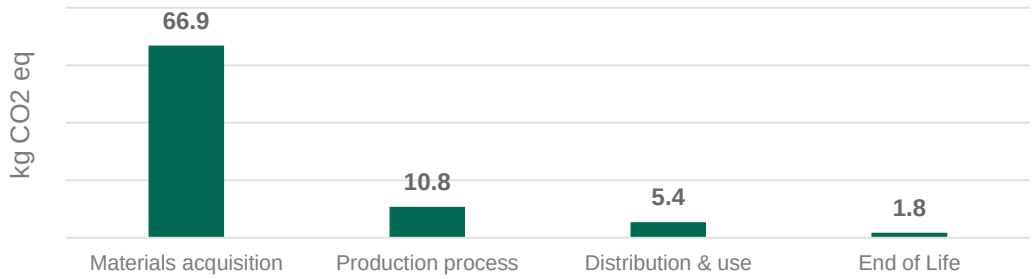
Life cycle impact by category and stage

Environmental impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using TRACI 2.1, IPCC AR6 characterization factors, and ISO 21930 LCI indicators for primary energy and water usage Results presented below are for one square meter of physical floor space maintained for two individuals 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.

		Life cycle stages				
	Unit	A1–A2 **Materials acquisition**	A3 **Production process**	A4-B7 **Distribution & Use**	C1-C4 **End of life**	*Totals*
***Global warming potential** (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	6.69E+01	1.08E+01	5.40E+00	1.75E+00	8.48E+01
***Acidification** Emissions that increase the acidity of the environment due to various chemical reactions and/or biological activity, or by natural circumstances.	kg SO2 eq	2.55E-01	2.27E-02	2.47E-02	7.73E-03	3.11E-01
***Photochemical ozone creation (Smog)** Through various chemical reactions, which occur between nitrogen oxides (NOx) and volatile organic compounds (VOCs) in sunlight.	kg O3 eq	3.59E+00	3.83E-01	5.52E-01	7.28E-02	4.60E+00
***Eutrophication** Enrichment of an aquatic ecosystem with nutrients (nitrates, phosphates) that accelerate biological productivity and an undesirable accumulation of algal biomass.	kg N eq	1.08E-02	3.63E-03	2.16E-03	1.42E-03	1.80E-02
***Ozone depletion** Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	4.90E-08	2.24E-10	1.91E-14	8.61E-11	4.93E-08
Primary energy demand Energy consumption at the source.	MJ	1.38E+03	3.25E+02	6.27E+01	1.33E+01	1.78E+03
Net freshwater usage Freshwater used and otherwise not recoverable.	kg	5.12E+01	9.45E+01	6.79E-02	1.04E-02	1.46E+02
Renewable primary resources used as an energy carrier First use materials from renewable sources with energy content used as a fuel.	MJ	4.19E+02	4.96E+01	2.76E+00	2.43E+00	4.74E+02
Renewable primary resources used as material First use materials from renewable sources with energy content used as a material	MJ	0.00E+00	1.65E+01	0.00E+00	0.00E+00	1.65E+01
Non-renewable primary resources used as an energy carrier First use materials from non-renewable sources with energy content used as a fuel	MJ	8.56E+02	1.69E+02	5.99E+01	1.09E+01	1.10E+03
Non-renewable primary resources used as material First use materials from non-renewable sources with energy content used as a material	MJ	5.14E+01	3.65E+01	0.00E+00	0.00E+00	8.80E+01
Recovered electrical energy (EEE) Electrical energy recovered from disposal of waste in previous systems	MJ	0.00E+00	1.86E+00	1.41E+00	2.03E+00	5.30E+00
Recovered thermal energy (EET) Thermal energy recovered from disposal of waste in previous systems	MJ	0.00E+00	7.19E-01	2.31E+00	1.78E+00	4.81E+00

*Methods: TRACI 2.1, IPCC AR6

Global warming potential summary



84.8 kg total CO_2-eq footprint

Life cycle resource consumption & waste summary

Additionally, results have been calculated using LCIA methodologies for core environmental impact categories specified in EN 15804+A2, as well as LCI indicators required by EN15804+A2. The results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.

		Product Stage	Construction Stage		Use Stage								End of Life			Benefits and Loads Beyond the System Boundary
	Unit	A1–A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Climate change, total	kg CO2 eq	1.41E+02	8.89E+00	1.17E+01	0	0	0	0	0	4.58E+00	0	0	1.46E-01	1.51E+02	2.90E+02	-1.88E+01
Climate change, fossil	kg CO2 eq	7.75E+01	4.45E+00	6.88E-01	0	0	0	0	0	4.54E+00	0	0	7.30E-02	5.37E-01	3.53E-01	-1.10E+01
Climate change, Biogenic	kg CO2 eq	8.61E-01	0.00E+00	4.92E+00	0	0	0	0	0	4.08E-02	0	0	0.00E+00	4.30E+00	1.44E+02	1.58E+00
Climate change, land use and land use change	kg CO2 eq	3.71E-02	2.44E-03	1.95E-04	0	0	0	0	0	6.90E-04	0	0	3.97E-05	-7.10E-05	1.42E-03	-5.91E-03
Ozone depletion	kg CFC-11 eq	4.73E-08	6.53E-13	3.03E-13	0	0	0	0	0	1.03E-10	0	0	1.06E-14	6.37E-11	1.08E-12	1.46E-12
Acidification	Mole of H+ eq	3.23E-01	2.61E-02	4.77E-04	0	0	0	0	0	8.78E-03	0	0	2.58E-04	7.49E-04	4.57E-03	-4.16E-02
Eutrophication, freshwater	kg P eq.	3.46E-04	2.22E-05	2.26E-05	0	0	0	0	0	1.88E-05	0	0	3.59E-07	-1.70E-07	2.73E-05	-1.16E-04
Eutrophication, marine	kg N eq	6.50E-02	1.23E-02	1.68E-04	0	0	0	0	0	2.19E-03	0	0	1.26E-04	3.94E-04	1.68E-03	-5.93E-03
Eutrophication, terrestrial	Mole of N eq	7.41E-01	1.36E-01	1.67E-03	0	0	0	0	0	2.29E-02	0	0	1.39E-03	4.53E-03	1.66E-02	-5.59E-02
Photochemical ozone formation, human health	kg NMVOC eq	2.16E-01	2.52E-02	5.16E-04	0	0	0	0	0	5.80E-03	0	0	2.48E-04	1.04E-03	2.77E-03	-2.08E-02
Resource use, mineral and metals**	kg Sb eq	4.35E-04	5.84E-07	5.16E-09	0	0	0	0	0	8.50E-07	0	0	9.36E-09	-9.16E-08	2.48E-08	-6.21E-04
Resource use, fossils**	MJ	1.21E+03	5.86E+01	1.30E+00	0	0	0	0	0	9.53E+01	0	0	9.69E-01	4.09E+00	5.83E+00	-1.27E+02
Water use**	m3 world equiv	-6.02E-01	2.61E-01	7.83E-02	0	0	0	0	0	1.26E+00	0	0	4.24E-03	4.66E-01	4.67E-02	-1.65E+00
Use of renewable primary energy (PERE)	MJ	4.88E+02	2.56E+00	2.04E-01	0	0	0	0	0	6.89E+01	0	0	4.15E-02	1.53E+00	8.56E-01	-2.27E+01
Primary energy resources used as raw materials (PERM)	MJ	1.65E+01	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT)	MJ	5.04E+02	2.56E+00	2.04E-01	0	0	0	0	0	4.58E+00	0	0	4.15E-02	1.53E+00	8.56E-01	-2.27E+01

		Product Stage	Construction Stage		Use Stage								End of Life			Benefits and Loads Beyond the System Boundary
	Unit	A1–A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of non-renewable primary energy (PENRE)	MJ	1.12E+03	5.86E+01	1.30E+00	0	0	0	0	0	6.89E+01	0	0	9.69E-01	4.09E+00	5.83E+00	-1.27E+02
Non-renewable primary energy resources used as raw materials (PENRM)	MJ	8.80E+01	0.00E+00	0.00E+00	0	0	0	0	0	9.53E+01	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT)	MJ	1.21E+03	5.86E+01	1.30E+00	0	0	0	0	0	0.00E+00	0	0	9.69E-01	4.09E+00	5.83E+00	-1.27E+02
Input of secondary material (SM)	kg	2.63E+01	0.00E+00	0.00E+00	0	0	0	0	0	9.53E+01	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW)	m3	7.86E-02	8.48E-03	1.90E-03	0	0	0	0	0	0.00E+00	0	0	1.38E-04	9.54E-03	1.38E-03	-7.65E-01
Use of renewable secondary fuels (RSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of nonrenewable secondary fuels (NRSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Recovered energy (RE)	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hazardous waste disposed (HWD)	kg	1.09E-05	7.90E-09	3.81E-10	0	0	0	0	0	5.27E-02	0	0	1.27E-10	3.67E-09	1.40E-09	-3.41E-05
Non-hazardous waste disposed (NHWD)	kg	8.79E+00	5.80E-03	1.47E+00	0	0	0	0	0	1.38E-07	0	0	9.45E-05	2.78E-01	1.65E+01	4.58E-01
Radioactive waste disposed (RWD)	kg	1.27E-02	1.76E-04	2.31E-05	0	0	0	0	0	7.86E-02	0	0	2.83E-06	3.33E-04	7.79E-05	-1.07E-03
Materials for recycling (MFR)	kg	1.53E+00	0.00E+00	9.42E-01	0	0	0	0	0	1.52E-02	0	0	0.00E+00	9.36E+00	0.00E+00	0.00E+00
Exported electrical energy (EEE)	MJ	1.86E+00	0.00E+00	1.41E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	2.03E+00	0.00E+00	0.00E+00
Exported thermal energy (EET)	MJ	7.19E-01	0.00E+00	2.31E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	1.78E+00	0.00E+00	0.00E+00
Components for re-use (CRU)	kg	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for energy recovery (MER)	kg	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon removal in product	kg	2.19E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon release in product	kg	0.00E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	2.19E+00	0.00E+00
Biogenic carbon removal in packaging	kg	1.86E+00	0.00E+00	0.00E+00	0	0	0	0	0	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00

		Product Stage	Construction Stage		Use Stage								End of Life			Benefits and Loads Beyond the System Boundary
	Unit	A1–A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Biogenic carbon release in packaging	kg	0.00E+00	0.00E+00	1.86E+00	0	0	0	0	0	7.34E-08	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulate matter emissions (PM)	Disease incidence	7.79E-06	2.51E-07	4.83E-09	0	0	0	0	0	2.51E+00	0	0	2.45E-09	1.04E-08	4.25E-08	-4.12E-07
Ionizing human radiation (IRP)*	kBq U235 eq.	3.02E+00	1.49E-02	3.23E-03	0	0	0	0	0	2.76E+01	0	0	2.39E-04	5.89E-02	1.05E-02	6.48E-02
Eco-toxicity freshwater (ETP-fw)**	CTUe	6.30E+02	4.57E+01	1.80E+00	0	0	0	0	0	1.55E-09	0	0	7.70E-01	6.17E-01	1.42E+01	-2.76E+01
Human toxicity - Cancer (HTP-c)**	CTUh	1.35E-06	7.84E-10	3.57E-11	0	0	0	0	0	2.38E-08	0	0	1.31E-11	4.42E-11	1.61E-10	-6.61E-09
Human toxicity - noncancer (HTP-nc)**	CTUh	6.98E-05	1.79E-08	1.76E-09	0	0	0	0	0	4.01E+01	0	0	2.97E-10	1.06E-09	4.28E-09	-6.52E-08
Land use related impacts / soil quality (SQP)**	n/a	1.98E+02	1.12E+01	2.19E-01	0	0	0	0	0	7.34E-08	0	0	1.81E-01	7.37E-01	1.03E+00	-4.79E+01

* This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

** The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

Module D: *22% of recycled materials were assumed to be available for subsequent use and offset and equivalent number of primary materials. Recovered energy was assumed to be in the form of electrical energy and thermal heat from the average European-28 electricity grid mix to consumer.*

Functional Unit

Parameter	Value
Declared unit	1m2 of table for a 10-year period
Number of occupants	2
Reference service life required	10 years

A4: Transport to the building site

Parameter	Value per functional unit	Value per functional unit
Transportation type	Truck	Ship
Fuel consumption (l/km)	0.42 diesel	130 heavy fuel oil
Distance	761 km	315 km
Capacity utilization	67%	53%
Capacity utilization volume factor	=1	=1
Weight of product (kg)	43.952	
Volume (m^3)	3.4	

A5: Installation in the building

Parameter	Value per functional unit
Packaging waste for recycling	2.747 kg
Installation Assumptions	No product waste, Installed with hand tools.

B1: Use

Parameter	Value per functional unit
There are no emissions related to the expected use of this product.	

B2: Maintenance

Parameter	Value per functional unit
Maintenance Process	Cleaning with soap and water
Maintenance cycle	0
Ancillary Materials for maintenance (kg/cycle)	0
Waste materials resulting from maintenance (kg)	0
Net fresh water consumption during maintenance (m^3)	0.00003
Energy input during maintenance (kWh)	0

Reference service life (RSL)

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 3
Indoor environment	Typical office and home environment
Use conditions	Typical office and home use

B3: Repair

Parameter	Value per functional unit
Repair process	No repairs are expected for this product
Inspection process	No repairs are expected for this product
Repair cycle (#/RSL)	0
Ancillary materials (kg)	0
Waste materials from repair (kg)	0
Net freshwater consumption during repair (m^3)	0
Energy input during repair (kWh)	0

B4: Replacement

Parameter	Value per functional unit
Replacement cycle (#/RSL)	0
Energy input during replacement (kWh)	0
Exchange of worn parts during the products life cycle (kg)	0

B5: Refurbishment

Parameter	Value per functional unit
Refurbishment process	No refurbishment is expected for this product
Refurbishment cycle (#/RSL)	0
Energy input during refurbishment (kWh)	0
Material input for refurbishment (kg)	0
Waste material resulting from refurbishment (kg)	0

B6 and B7: Use of energy and Use of Water

Parameter	Value per functional unit
Ancillary materials (kg)	0
Net freshwater consumption (m^3)	0
Power output of equipment (kW-hr)	0.00146
Characteristic performance	n/a

C1-C4: End-of-life

Parameter	Value per functional unit
Weight of product collected	43.952 kg
Weight to recycling	9.6 kg
Weight to energy recovery	7.0 kg
Weight to landfill	27.3 kg
Distance to recycling	32.2 km
Distance to energy recovery	32.2 km
Distance to landfill	32.2 km

ADDITIONAL ENVIRONMENTAL INFORMATION

Indoor air: Steelcase tables products are certified with SCS's Indoor Advantage Gold™ program, conforming to the ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2021) and CDPH/EHLB Standard Method (CA 01350) v1.2-2017. The certification can be found here.

Improper disposal of product: At the end of its useful life, manage Steelcase products correctly in accordance with all applicable regulations for effective end-of-life management, including recycling, disposal, or incineration. Improper management may result in the release of chemicals that may represent a risk to the environment and human health & safety.

REFERENCES

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NSF BIFMA Product Category Rule (PCR) for Tables: UNCPC 3812.

NSF Certification Policies for Environmental Product Declarations (EPD). November 1, 2022.

ISO 14025:2006 Environmental Labels and Declarations – Type III Environmental Declarations – Principles and Procedures.

ISO 14040:2006 Environmental Management – Life Cycle Assessment – Principles and Framework, Requirements and Guidelines.

ISO 14044:2006 Environmental Management – Life cycle assessment – Requirements and Guidelines.

ISO 14044: 2006/ Amd 1:2017 Environmental Management – Life cycle assessment – Requirements and Guidelines – Amendment 1.

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