

#### **PRODUCT SUMMARY**

#### Scope of Assessment:

From extraction of raw materials through to production of the final Office Furniture unit (cradle to gate).

See page 2 for more details.

#### Data Used:

Primary data was used wherever possible A Desking solution designed and including for energy use during the core manufactured to last 10 years.

All secondary data was obtained from the Regional Market: Ecolnvent database. used in conjunction

The primary market for our Office

Functional Unit:

with SimaPro 7.3.2, using European data Furniture products is Europe. The scope of this declaration reflects that.

## MATERIAL DECLARATION ENVIRONMENTAL SUMMARY

Material:	Amount (kg):	Total (%):		
Plywood	60.30	99.83	Global Warming Potential (Kg Co2 Eq):	56.28
Zinc Castings	0.10	0.17	Recycled Content (% By Weight):	00.00
			Total Energy Consumption (Mj):	2973.14
			Recyclability (% By Weight):	99.00

Date of Production: August 2020

## **ENVIRONMENTAL PRODUCT ANALYSIS**

This Environmental Product Analysis has been created in accordance with, and following the principles of ISO14025 and

All the Life Cycle Analysis data has been compiled, processed and verified by Oakdene Hollins Ltd.

Compilation and processing of LCA data performed by Dr. Dan Skinner (Oakdene Hollins Ltd.)

Verification of LCA and environmental data performed by Dr. Adrian Chapman (Oakdene Hollins Ltd.)

## SPECI#LIST PRODUCTS

## **SUSTAIN**

key word upon which to focus our attention is Sustainability rather than Recyclability in pure isolation.

Our business takes a truly holistic approach to the design, The Senator Group's products and processes.

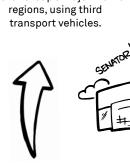
The Senator Group has for many years acknowledged that the We harvest the resources back from the retired products then remanufacture or reintroduce the materials into our component manufacturers supply chain.

We believe in taking responsibility for our own actions ourmanufacture, supply and reclamation of our products. We see selves, wherever possible, rather than relying on third parties, or this as a cyclical process. From design to manufacture, use and abdicating our responsibilities by offsetting. The process of Susreclamation we aspire to minimise all environmental impacts of tainability is a cyclical one we understand this and we actively pursue this in everything that we do.

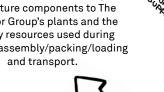
#### IN USE



The Downstream module of the product's life-cycle includes transport of the product to The Senator Group's major market regions, using third



CORE The core module of the product's life-cycle includes the transport of funiture components to The Senator Group's plants and the energy resources used during product assembly/packing/loading



**UPSTREAM** The upstream module of the product's

life-cycle includes the extraction and treatment of raw materials, transport of the new material to the component suppliers and the manufacture of usable components from those materials.

The Senator Group



sidered in this Life Cycle Analysis

however all of The Senator Group's

products are considered to be 99% recyclable.

The Senator Group offers a

full recycle service for all it's

customersand clients, to close

the recycling loop.

#### **SYSTEM BOUNDARIES**

SPECI\*LIST PRODUCTS

Resource (Kg)	Upstream	Core	Downstream	Total
From the Air	161.96	1.34	0.01	163.31
From the Ground	78.63	22.00	2.82	103.45
From The Water	0.00	0.00	0.00	0.00

## **ENERGY CONSUMPTION**

Resource (MJ)	Upstream	Core	Downstream	Total
Biomass	1774.89	14.74	0.06	1789.69
Hydro	22.64	4.74	0.35	27.73
Solar	0.04	0.00	0.00	0.04
Wind	2.59	1.42	0.01	4.02
Non-Renewable Energy (MJ)	847.90	270.73	33.03	1151.66
Total	2648.06	291.63	33.45	2973.14

## **ENVIRONMENTAL IMPACT POTENTIAL**

Resource	Upstream	Core	Downstream	Total
Global Warming (Kg CO2 Equivalents)	39.16	15.18	1.94	56.28
Acidification (Kg SO2 Equivalents)	0.26	0.06	0.01	0.33
Eutrophication (Kg PO43 Equivalents)	0.02	0.00	0.00	0.02
Ozone Depletion (Kg CFC 11 Equivalents)	0.00	0.00	0.00	0.00
Photochemical Smog (Kg C2H4 Equivalents)	0.04	0.00	0.00	0.04

## **TOXIC EMISSIONS**

Resource (Kg)	Upstream	Core	Downstream	Total	
From the Air	107.45	512.49	189.81	809.76	
From the Ground	0.17	0.06	0.02	0.25	
From The Water	4.26	8.78	2.82	15.86	

#### **RECYCLED CONTENT**

Total

Material	Recycled Content of Material (% by weight)	Recycled Content In Product (% by weight)
Material	Amount	Percent of Total
Plywood	00.00	00.00
Zinc Castings	00.00	00.00

## **CERTIFICATES**

Quality Assurance	100 0001	Cartified 1001
Quality Assurance	ISO 9001	Certified 1991
Envronmental Management	ISO 14001	Certified 2001
Chain of Custody	FSC®	Certified 2003
Sustainability	FISP	Certified 2006
Health & Safety Standard	BS 0HSAS 18001	Certified 2015

Accreditation







## FURNITURE **INDUSTRY** SUSTAINABILITY PROGRAMME (FISP)

Awarded by FIRA, this sustainability certificate is designed to monitor all sustainability aspects of a company's facilities and operations. The Senator Group achieved one of the first sustainability certifications within the furniture industry - a public declaration of our commitment to improving our performance in every possible

## **ENERGY MANAGEMENT:**

External proof that Senator has implemented a robust system to monitor all energy usage and have a process to continually minimise energy

first company in the furniture industry to achieve this standard.

# CHAIN OF CUSTODY ENVIRONMENTAL

prove Senator only purchases MFC/MDF/Chipboard from manufacturers who can prove they purchase their raw wood from sustainable sources.

First Certified

We believe Senator was the

## Independent certification to MANAGEMENT

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## THE THREE R'S

Senator is committed to continually improving the sustainability of all environmental aspects within our business. To meet both international standards and our own environmental targets we apply the three R's principle-

REDUCE, REUSE AND RECYCLE.

Whilst recycling is the element which receives the most exposure it is actually the last option available and should never be the prime target in anyone's battle to reduce waste.

It is our duty as individuals and as a company to initially attempt to Reduce usage. Then we should look to Reuse wherever possible and finally, only after these two processes have been exhausted, should we consider Recycling.



#### **ASSESSMENT CONSIDERATIONS**

The following necessary assumptions and considerations were made during the course of the Life-Cycle Analysis:

 Manufacture of the furniture components was assumed to take place in the same factory in which the raw materials were processed, due to a lack of case-specific data.

• The transport of all materials, components and finished products was assumed to be via 16-32t Euro 5  All LCA data was modelled using the IMPACT 2002+ (v2.06) method.

thesenatorgroup.com

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