
ENVIRONMENTAL
INITIATIVE
logiflex
2023

TABLE OF CONTENTS

A WORD FROM MANAGEMENT

Logiflex is an office furniture manufacturer with solid experience in numerous projects of all kinds. We make high-quality flexible modular products at competitive prices and offer product collections that grow with businesses to protect their initial investment.

Logiflex furniture is used in a variety of spaces, with offices, conference rooms, meeting rooms and training centers forming the basis of our business model. Over the years, our areas of expertise have expanded to include long-term care facilities, nursing homes, health care facilities, reception areas, education centers and much more. We are proud that our products help provide highly inviting, comfortable work environments to thousands of workers across North America year after year. As our company has grown, so too has our awareness of the potential impact of our operations and products on the local and global community.

Through their actions, every single person—Logiflex employee, manager, customer or supplier—plays a vital role in supporting sustainable development efforts. Each individual contributes in their own way to the goal of providing the most eco-friendly products possible from environmental, social and governance standpoints. Everything we do, from our choice of suppliers and our product design and manufacturing processes to our emphasis on employee health and safety and the importance we place on equity, diversity and inclusion across our teams, is a testament to the commitments we make on a daily basis.

This document showcases one aspect of those commitments: the various aspects of Logiflex's eco-friendly approach.

We encourage you to read this report to get more insight into the essence of Logiflex products and learn more about our efforts to help build a greener world.

Yan Sinclair

President

OUR ENVIRONMENTAL VISION

Since its inception, Logiflex has been providing furniture and spaces that meet the needs of our customers. Because we recognize our impact on the environment, we decided to push our eco-friendly approach one step further. Our goal is to uphold responsibility standards that reflect our ambitions, while monitoring our impact on the environment and the communities around us. This report provides an overview of our environmental impact, our initiatives to reduce our footprint and our overall goals.

Environmental policy

To ensure our environmental efforts are consistent with our practices, we have created an environmental policy to serve as a framework for our approach.

See **APPENDIX A**.

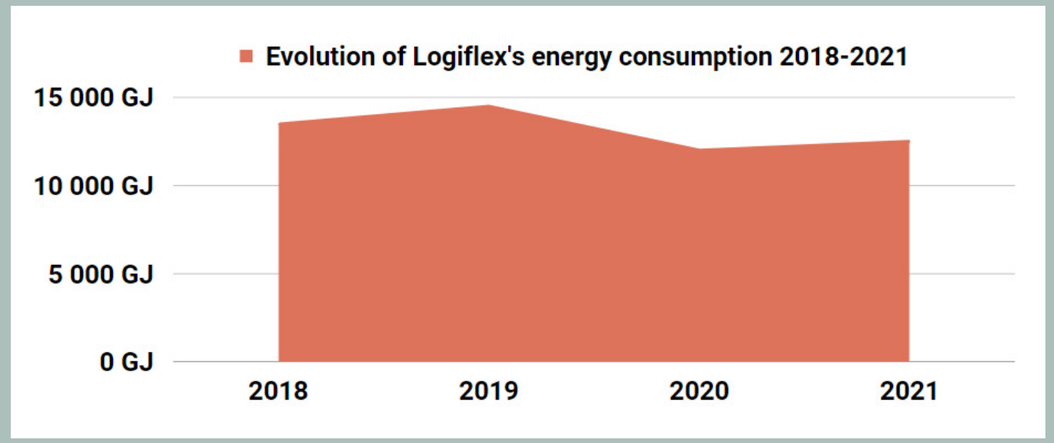
ENVIRONMENTAL FOOTPRINT

In 2022, we challenged ourselves to construct a full picture of our environmental footprint. We put out our first carbon footprint report (2021), measured our energy consumption and addressed our water consumption to help us develop a plan to reduce our GHG emissions and our energy and water usage.

Energy

Although Logiflex primarily uses hydroelectric power, the paint booth at our soft seating manufacturing plant is propane powered. We plan to fully eliminate our propane usage by 2023 by transferring our production to a Tec partner plant. Our assessment of the energy needed to manufacture Logiflex products includes the energy used by each of our company's buildings at the Sherbrooke site. The figure below shows the overall energy demand trend for Logiflex between 2018 and 2021.

Figure 1 Logiflex energy consumption, 2018–2021



The data shows that our company's energy demand dropped by 5.5% between 2018 and 2021. It should be noted that energy consumption increased slightly when operations resumed following the 2020 pandemic hiatus.

Using the data from Figure 1, we estimated the average energy consumption needed to manufacture our products. In 2021, manufacturing and assembling a piece of laminate furniture required around 2,591 MJ (megajoules)/m^3 of laminate. Calculations are approximate and available upon request.

Regarding the supply chain, our laminate supplier, Uniboard, uses a standardized unit of 1 m^3 to measure the energy footprint (2018) of manufacturing a laminate panel. According to their analysis, the energy consumption for manufacturing 1m^3 of particle board is 8,926 MJ.

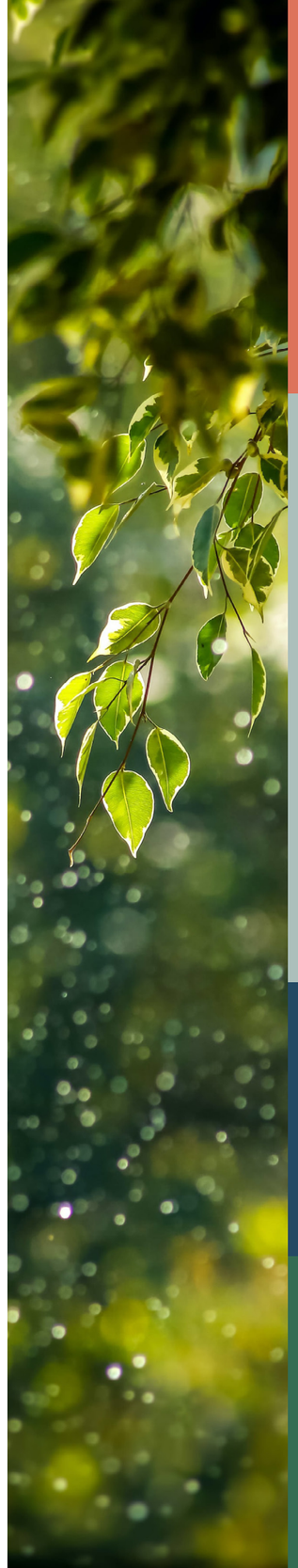
Uniboard's environmental product declaration can be viewed on their website.

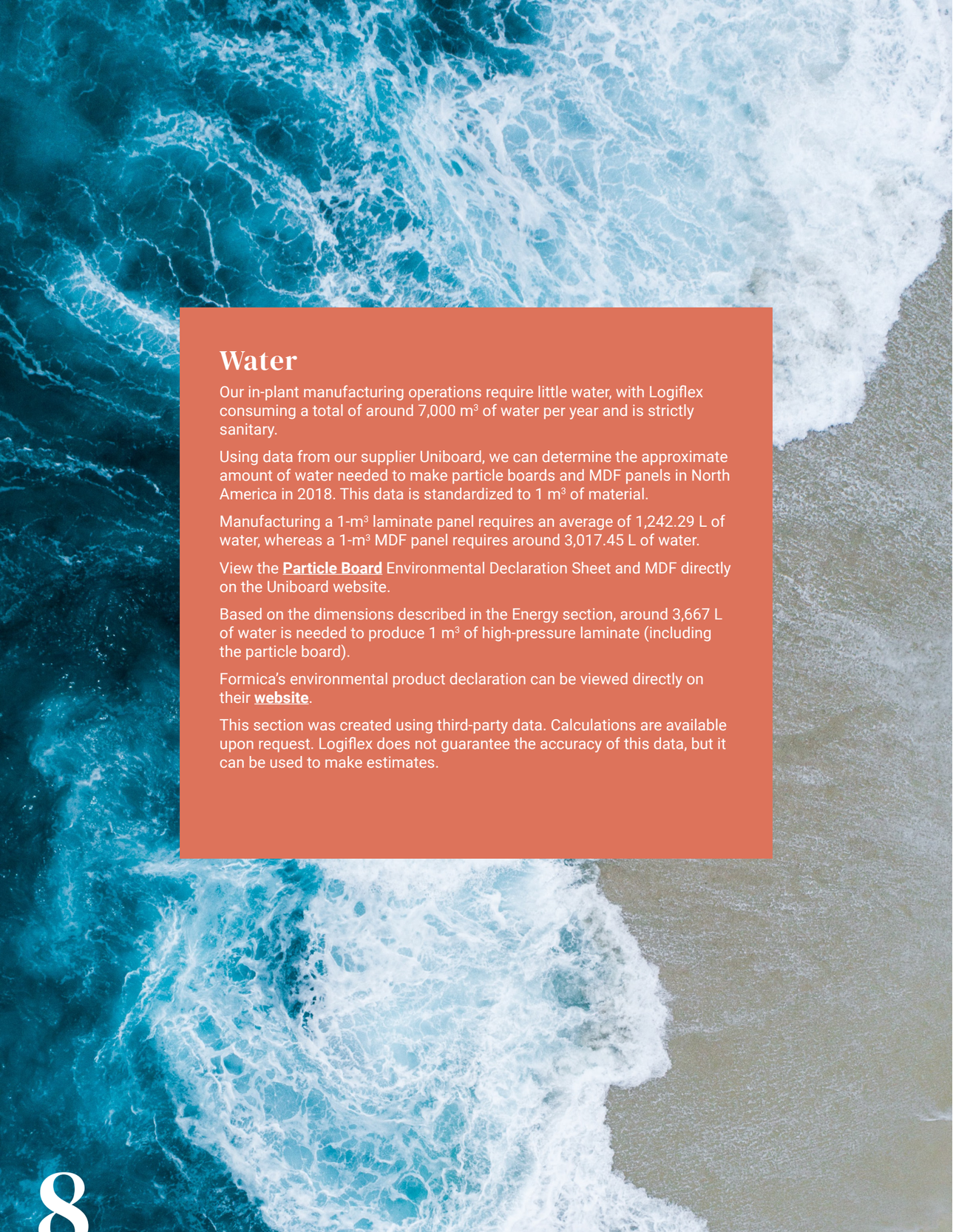
One of our MDF suppliers purchases its raw material from Uniboard. The Composite Panel Association has calculated the energy footprint (2018) of manufacturing a standard 1 m^3 MDF panel in North America. Uniboard has also published an environmental product declaration for its MDF products. The total energy required to manufacture 1 m^3 MDF panel is 1,7546.73 MJ.

Uniboard's environmental product declaration can be viewed directly on their website.

Another supplier, Formica, has published an environmental product declaration for its high-pressure laminate products. This declaration covers the life cycle of 0.9 mm (0.035") and 0.7 mm (0.027") high-pressure laminate countertops from the raw material acquisition stage to the end-of-life stage. It also includes data for particle board with a thickness of 19.05 mm (0.75"). The high-pressure laminate sheets we purchase are generally 0.8 mm (0.031") thick. Calculations show that the energy footprint of producing 1 m^3 of high-pressure laminate (including the particle board) is approximately 22,216.62 MJ (megajoule).

Formica's environmental product declaration can be viewed directly on their website.





Water

Our in-plant manufacturing operations require little water, with Logiflex consuming a total of around 7,000 m^3 of water per year and is strictly sanitary.

Using data from our supplier Uniboard, we can determine the approximate amount of water needed to make particle boards and MDF panels in North America in 2018. This data is standardized to 1 m^3 of material.

Manufacturing a 1-m^3 laminate panel requires an average of 1,242.29 L of water, whereas a 1-m^3 MDF panel requires around 3,017.45 L of water.

View the **Particle Board** Environmental Declaration Sheet and MDF directly on the Uniboard website.

Based on the dimensions described in the Energy section, around 3,667 L of water is needed to produce 1 m^3 of high-pressure laminate (including the particle board).

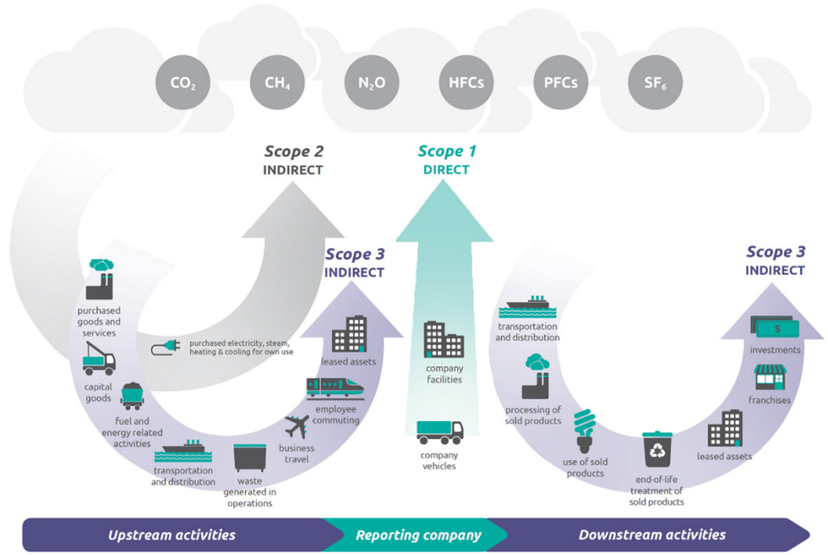
Formica's environmental product declaration can be viewed directly on their **website**.

This section was created using third-party data. Calculations are available upon request. Logiflex does not guarantee the accuracy of this data, but it can be used to make estimates.

Greenhouse Gas Balance

In 2022, Logiflex produced its first greenhouse gas (GHG) emissions inventory with the help of an external partner, in accordance with the ISO 14064-1: 2018 standard. carbon footprint of organizations. The standard differentiates between direct and indirect company emissions. Figure 2 presents the sources by dividing the direct and indirect sources into three major emission categories (scopes). The ISO 14064-1: 2018 standard segments emissions into more than 3 scopes. However, it is possible to classify them in the same way, as explained in the next section. (GHG Protocol n.d.; ISO, 2018).

Figure 2 GHG emission categories (Image taken from the GHG Protocol)



Declaration Scope

The reference year chosen is 2021. The report considers the following GHGs: CO_2, CH_4, N_2O, NF_3, SF_6, HFCs. The results are presented in tons of CO^2 equivalent. Logiflex's balance sheet reporting scope includes the following sources:

Direct Emissions (Category 1 or Scope 1)

- Stationary combustion of fossil fuels in buildings;
- Fuel combustion in company-owned vehicles;
- Leaks from building air conditioning systems;
- Leaks from the air conditioning systems of company-owned vehicles;
- Consumption of acetylene for welding.

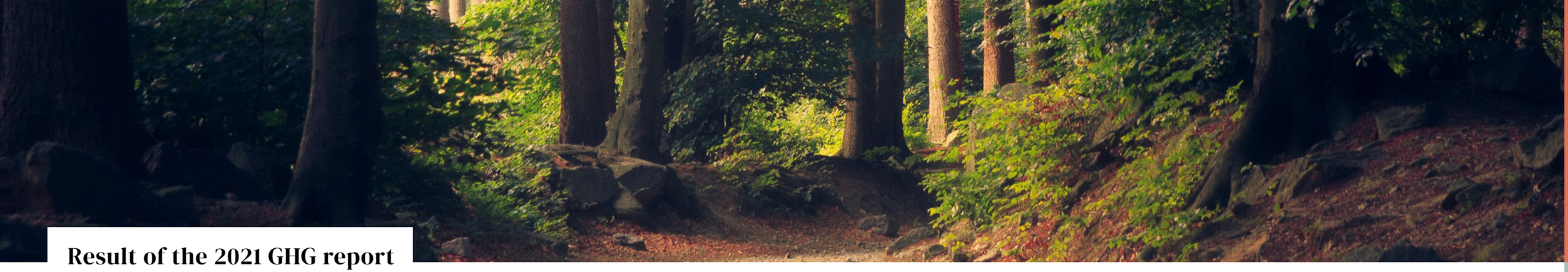
Indirect emissions related to energy (Category 2 or Scope 2)

- Electricity consumption in buildings.

Other indirect emissions (category 3 and 4 or Scope 3)

- Employee travel to get to work;
- Employee travel for work;
- Transportation of purchased raw materials/products;
- Distribution of company products to users;
- Production of fossil fuels (from direct sources);
- Electricity life cycle emissions;
- Production of raw materials;
- Paper consumption;
- Degradation of materials sent to landfill;
- Recycling/valorization of residual materials;
- Transportation of residual materials.

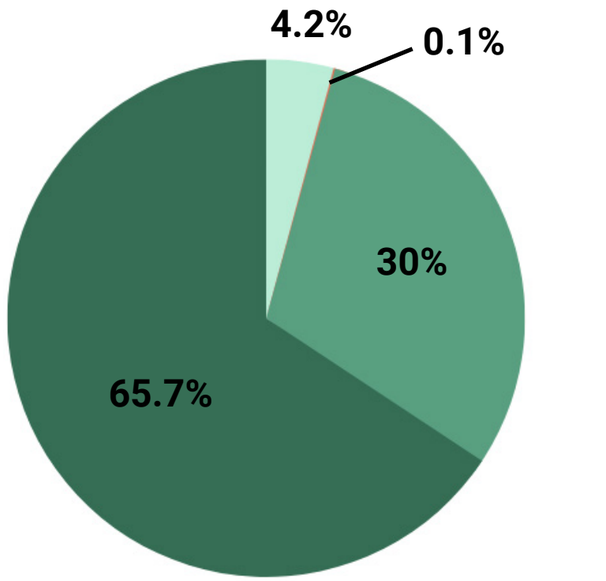
Other sources have been excluded due to lack of information, level of significance and Logiflex's reduction capacity.



Result of the 2021 GHG report

The results for the year 2021 are presented in the graph below:

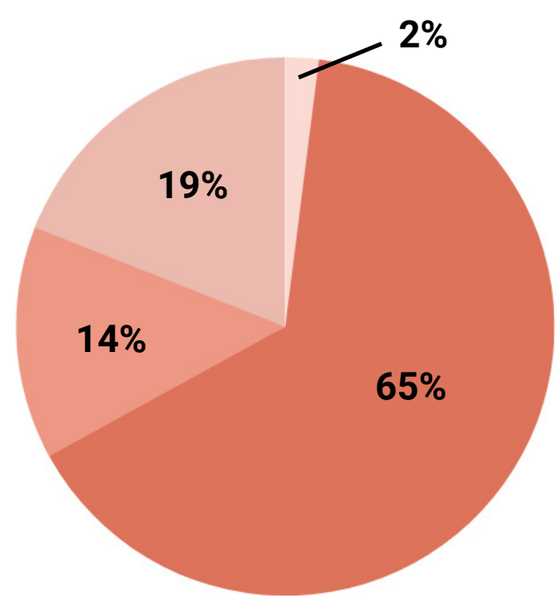
Figure 3 Breakdown of emissions by category according to the ISO 14064-1 standard



This graph represents the distribution of GHG emissions by category according to the ISO 14064-1: 2018 standard. It can be seen that Logiflex's direct operations only account for 4.2% (189 tonnes of CO_2 eq) of total emissions . Emissions due to the consumption of imported energy (e.g. hydro-electricity) correspond to less than 1% (6 tonnes of CO_2 eq) of total emissions. Indirect emissions of categories 3 and 4 are outside the direct scope of Logiflex and represent more than 95.7% (4306.7 tonnes of CO_2 eq) of total emissions.

It is also possible to view GHG emissions by major categories of Logiflex activities. The following figure illustrates the breakdown of GHG emissions by supply, direct operations, distribution of products sold and residual materials management (RMM).

Figure 4 Breakdown of GHG emissions by major activity category



According to this perspective, some sources are moved from one scope to another. However, we can see that the operations (direct and indirect) of Logiflex represent 14% (646 tons of CO_2 eq) of the emissions. While supply 65% (2923 tons of CO_2 eq), distribution 19% (861 tons of CO_2 eq) and residual materials management 2% (72 tons of CO_2 eq). This data will serve as the cornerstone to produce a plan to reduce the carbon footprint of Logiflex.

RESPONSIBLE PROCUREMENT

In its attention to environmental impacts, Logiflex is attuned not only to the direct impacts of its operations but also to the consequences of its procurement decisions.

Strategy

In 2022, we took another step forward by introducing guidelines for responsible procurement and for the Logiflex supplier code of conduct. These two documents will serve as a basis for drafting a lasting policy.

Part of our environmental vision and practices is the careful selection of suppliers. Our strategy aims to do the following:

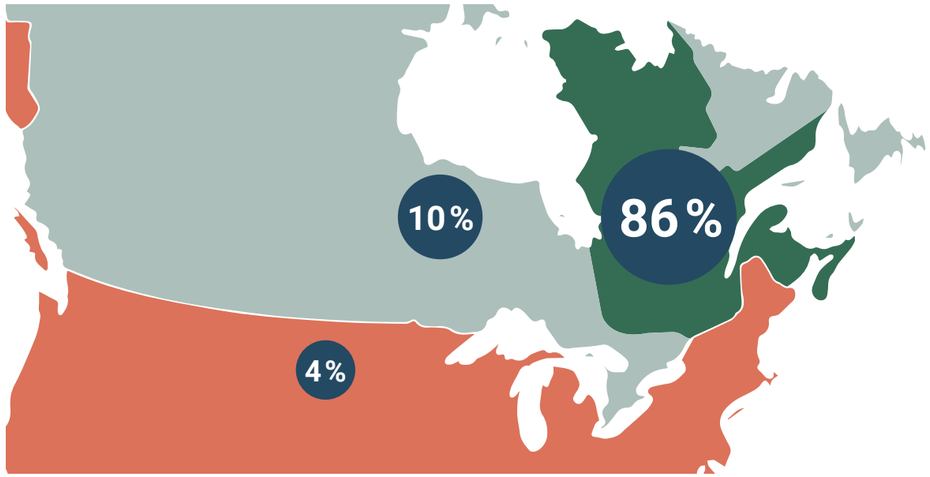
- Reduce our supply radius by choosing local suppliers whenever possible
- Encourage partners with environmental and/or social responsibility certifications
- Favor suppliers who are also working to improve their environmental footprint
- Work with companies that embrace transparency and that are willing to provide information about their environmental and social responsibility performance
- Prioritize working with partners who, at minimum, comply with the environmental and human rights protection laws of their country/province/state of origin.
- Share our responsible procurement expectations with suppliers

The Responsible Procurement Guidelines and the Supplier Code of Conduct Guidelines can be found in **APPENDIX B** and **APPENDIX C**, respectively.

Local suppliers

In keeping with our strategy, we prioritize working with local suppliers and try to stay within a small supply radius. We are proud that around 86% of our furniture components are sourced from Quebec suppliers. We purchase 96% of our materials from Canadian suppliers, and only 4% of our purchases come from the United States.

Figure 3 Procurement activities by region (in purchase volume)



Furthermore, our laminate is sourced from Uniboard and accounts for around 32% of our purchase volume. Uniboard's mill is located in Sayabec, near Rimouski, Quebec, approximately 600 km from Logiflex's processing plant in Sherbrooke.

See the journey from Logiflex's plant to Uniboard's Sayabec mill in **APPENDIX D**.

Optimizing transportation

Launched in 2004, SmartWay is an Environmental Protection Agency (EPA) program that helps the freight transportation sector improve supply chain efficiency. SmartWay:

Provides a system for documenting and sharing data on GHG emissions from transportation

Helps companies make better choices around transport modes and operational optimization strategies

Supports global energy security

Reduces transportation-related GHG emissions by encouraging the use of energy-efficient technologies.[2]

Normandin Transit Inc, one of Logiflex's main carriers in the United States, is SmartWay certified and maintains a GHG record (available upon request).

See Normandin Transit Inc.'s SmartWay certification in **APPENDIX E**

[2] United States Environmental Protection Agency. (2016). Learn about SmartWay [collections and lists]. https://www.epa.gov/smartway/learn-about-smartway

RESPONSIBLE MATERIALS

We believe high-quality products must also be eco-friendly. To ensure our quality standards are met, we strive, as much as possible, to prioritize products that are certified, recycled, recyclable and recoverable. We also try to find alternatives to toxic substances that may be harmful to people's health and the environment.

Laminate

Logiflex procures its laminate from world-renowned supplier Uniboard.

- Their laminate is available in four different thicknesses: 3/4" (19.05 mm), 5/8" (18.875 mm), 1" (25.4 mm) and 1 5/8" (41.275 mm).
- Their grade M-2 panels have a density range of 620–670 kg/m³.
- Their paper weight is 110–125 grams (0.22–0.27 lb.) per square meter.
- Uniboard products comply with the formaldehyde emission standards of EPA TSCA Title VI (40 CFR 770) and/or CARB 2, CAN/CSA-0160-16, ANSI A208.1 and California Air Resources Board (CARB) Airborne Toxic Control Measures (ATCM) 93120.
- Uniboard laminate has earned ECO-Certified Composite (ECC) certification.
- Uniboard is Forest Stewardship Council (FSC) certified.
- Uniboard products are LEED-point eligible.

The tables below list the features of Uniboard's grade M-2 particle board and laminate. For more information, visit Uniboard's website.

Table 1 Grade M-2 particle board features

Features of Uniboard grade M-2 particle board		
Properties	**ANSI A208.1-2016 (Grade M-2)**	
	Metric	**Imperial**
Density	620–670 kg/m^3	38.7–41.8 lb./cu. ft.
Internal bond	0.40 N/mm^2	58 psi
Modulus of rupture	0.13 N/mm^2	1,885 psi
Modulus of Elasticity	2,000 N/mm^2	290,100 psi
Screw holding: Face	900 N	202 lb.
Screw holding: Edge	800 N	180 lb.
Moisture content	Max. 10%	
Thickness tolerance (from specified thickness)	± 0.200 mm	± 0.008"
Thickness tolerance (from panel average)	± 0.100 mm	± 0.004"
Length/width	± 2.0 mm	± 0.080"
Linear expansion	≤ 0.40 %	

Table 2 Laminate panel features

Uniboard laminate features		
Properties	**Testing method**	**Testing requirements met by Uniboard**
Wear resistance	NEMA LD 3-2005	400 cycles (solid colors)
		125 cycles (prints)
Appearance		No type A, B or C defects
Stain resistance		1–10: No effect (solid colors)
		11–15: Moderate effect (prints)
Cleanability		Max. 20
Light resistance (UV rays)		Slight
High-temperature resistance		Slight
Radiant heat resistance		No effect after 60 seconds
Boiling water resistance		No effect
Impact resistance		381 mm/m
Fire rating		Class III or C
Warping	CPA APPENDIX D	3 mm/m
Formaldehyde emission		
Decorative surface	ANSI A208.1.99	<0,04 ppm
Particle board	CARB 2	<0,09 ppm

*Data from Uniboard

High-pressure laminate

We currently have two main suppliers of high-pressure laminate. High-pressure laminate, also known as HPL, is a decorative layer applied to sheets of kraft paper. Its particular manufacturing process makes it extremely resistant. High-pressure laminate is compliant with or certified under the following standards:

- ANSI/NEMA LD 3-2005
- NEMA / ASTM E-84 standards for fire resistance
- NSF International 35 standard for work contact surfaces, contact surfaces and splash zones
- FSC certification
- GREENGUARD and GREENGUARD Gold certifications

The table below sums up the features of high-pressure laminate. For more information, visit Formica's website.

Table 3 Features of Formica high-pressure laminate

Features of Formica high-pressure laminate		
Properties	**Testing method**	**Meets requirements**
Appearance	NEMA LD 3-2005	Yes
Surface finishing		Variable
Light resistance (UV rays)		Variable
Cleanability		Yes
Stain resistance		Yes
Boiling water resistance		Yes
High-temperature resistance		Yes
Scratch resistance		Yes
Impact resistance (ball)		Yes
Impact resistance (dart)		Yes
Radiant heat resistance		Yes
Dimensional change		Yes
Room temperature dimensional stability		Yes
Wear resistance		Yes

*Data from Formica's website

Edging

To ensure quality, all visible edges of panels that are not resting on other panels are also covered with edging:

- 1.5-mm thick unplasticized PVC affixed directly onto the surface panel using a digital-control edge bander
- The underside of leg bases and modesty panels are covered with 0.508 mm (0.02")-thick PVC
- Tops of drawers are covered with 1.5-mm thick PVC
- Edgings perfectly complement panel finishes

Wood

Our Volt furniture collection features a line of wood-aproned workstations, conference tables and collaboration tables. A few of our chair and soft seating components are also made of wood.

- Our furniture uses birch wood.
- The wood supplied by Seatply is FSC certified.
- The wood components sourced from GoodFellow Inc. are FSC certified.

Medium-density fiberboard (MDF)

Some Logiflex furniture is made with medium-density fiberboard (MDF).

- These MDF panels are compliant with the ANSI A2008.2 [2009] standard.
- They comply with Lacey Act [16 U.S.C.33729F0] requirements.
- They also meet CARB 2 standard formaldehyde emission requirements.
- MDF has ECO-Certified Composite (ECC) certification.
- The wood used for MDF is FSC certified.
- Uniboard products are LEED-point eligible.

For more information, visit Uniboard's website.

Upholstery

Our chairs and soft seating can be upholstered in a wide variety of finishes. Logiflex offers a selection of 12 in-stock upholstery options, including fabric, leather, vinyl and tackboard fabric. Other types of upholstery can be purchased directly from our suppliers. Refer to the Logiflex Upholstery Guide.

Many of these upholstery fabrics are made with recycled, pre-consumer and/or post-consumer materials.

Table 4 In-stock fabric containing recycled material

Material	Style	Grade	Supplier	Recycled material	Percentage
Fabric	Frequency	1	Geo. Sheard Fabrics	Post-consumer polyester	65%
Fabric	Genesis	1	Geo. Sheard Fabrics	Post-consumer polyester	55%
Fabric	Oasis	1	Geo. Sheard Fabrics	Post-consumer polyester	65%
Fabric	Cloud Nine	2	Geo. Sheard Fabrics	Post-consumer polyester	100%
Fabric	Crosslink	2	Geo. Sheard Fabrics	Post-consumer polyester	100%
Fabric	Nature	A	Artopex	N/A	0%
Vinyl and PU leather	Dillon	1	Culp, Inc	N/A	0%
Vinyl and PU leather	Hathaway	1	Culp, Inc	N/A	0%
Leather	Santiago	Leather	CTL Leather, Inc	N/A	0%
Tackboards	FR701	2	Duvaltex	Post-consumer polyester	100%
Tackboards	Off the Grid	1	Duvaltex	Pre-consumer polyester	49%
				Post-consumer polyester	38%
Tackboards	Spinel	4	Duvaltex	Pre-consumer polyester	68%
				Post-consumer polyester	32%

Upholstery (cont.)

Momentum Textiles is one of our main commercial fabric suppliers. This fabric distribution company is a leader in its market and seeks to constantly improve its work practices in order to manage and minimize its environmental footprint.

Since January 2010, Momentum Group has been offsetting a portion of its GHG emissions through a partnership with The Conservation Fund3 and the Go Zero program.4 The Conservation Fund's Go Zero program has enabled individuals and companies to measure and offset their carbon dioxide emissions by planting trees. To date, Momentum Group has offset 8,550 tons of CO^2 eq.

For more information, visit the Momentum Texiles website.

Another one of our fabric suppliers, Duvaltex, relies on innovation to offer more sustainable textiles. In 2019, the company launched its Clean Impact Textiles collection, made from 100% recycled post-consumer, biodegradable polyester. Duvaltex adds a biocatalyst to the polyester to encourage anaerobic digestion once in landfill. Clean Impact Textiles are 91% biodegradable and the fibers are fully recyclable. The fabric also complies with:

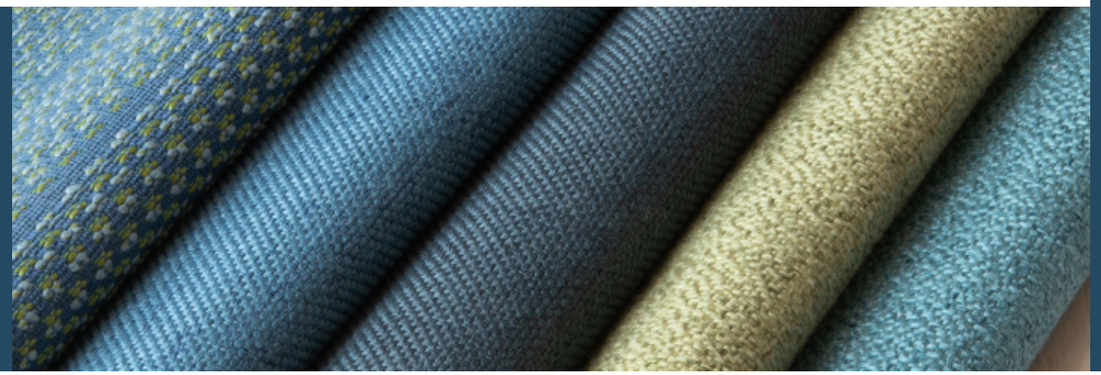
- ASTM D5511 standards
- Association of Contract Textiles (ACT) guidelines
- NSF/ANSI standards for commercial indoor fabric
- Facts Gold certification requirements
- LEED point criteria

For more information, visit Duvaltex's website.

In 2020, Duvaltex expanded its eco-friendly product line by launching a collection of polyester made entirely from recycled ocean waste plastic and other post-consumer plastics. The polyester fiber is both recyclable and fully traceable. This product line also complies with:

- Association of Contract Textiles (ACT) guidelines
- NSF/ANSI 336 – sustainability assessment for commercial furnishings fabric and Facts Gold certification requirements
- LEED point criteria

For more information, visit Duvaltex's website.



[3] The Conservation Fund. (s.d.) The Conservation Fund. https://www.conservationfund.org/
[4] The Conservation Fund. (s.d.) Carbon and Climate. The Conservation Fund. https://www.conservationfund.org/carbon-and-climate/legacy-of-go-zero

FOAM

DomFoam provides the foam we use as upholstery filling in our chairs and soft seating. Their foam is CFC-free and partially made with vegetable oil.

For more information, visit Domfoam's website.

Hardware

The hardware components used in our furniture are outlined in **APPENDIX F**.

Our material's 4R properties

In light of our procurement and environmental goals, we prioritize buying materials that are recycled, recyclable and recoverable. This section provides the percentage of recycled, pre-consumer and post-consumer material contained in our packaging and furniture components. The table below shows materials with 4R properties.

Table 6 Our material's 4R properties

Material	Recycled content	Percentage	End of life
Laminate	Pre-consumer	83.7%–86.5%	Energy recovery
	Post-consumer	0%	
High-pressure laminate (HPL)	Pre-consumer	0%–1.5%	N/A
	Post-consumer	0%–13.9%	
Steel	Pre-consumer	0%–25%a	Recyclable
	Post-consumer	0%–20%a	
Aluminum	Pre-consumer	N/A	Recyclable
	Post-consumer	N/A	
Edging	Pre-consumer	0%	Recyclableb
	Post-consumer	0%	
MDF	Pre-consumer	81.4%–83.7%	Energy recovery
	Post-consumer	0%	
Fabric	Pre-consumer	0%–68%a	Recyclableb
	Post-consumer	0%–100%a	
	Post-industrial	0%–78%a	
Glass	Pre-consumer	0%	N/A
	Post-consumer	0%	
Acrylic	Pre-consumer	0%	Recyclableb
	Post-consumer	0%	

[a] Percentage may vary from one supplier to another.

[b] Recyclable under certain conditions.

You can find more information about our material's recycled content and recycling and recovery pathways in APPENDIX G.

Our material's 4R properties (cont.)

The particle board we use is hard to recycle[5] since it contains resin made from urea formaldehyde,[6] an organic compound that can be released into the air. Concentrations above established standards can lead to health problems in workers.[7] Because of this, the laminate waste from Logiflex's manufacturing process is collected, ground down and sent to a partner for energy recovery. The heat generated from burning the waste material helps reduce the amount that ends up in landfills, while heating our partner producer's greenhouses.

See the Environment Quality Act certificate of authorization for Les Serres Stéphane Bertrand in **APPENDIX H**.

Packaging

Our packaging primarily includes the following:

- 1/4" (6.35 mm) polyethylene (PE) foam with a density of 1.3 lb./cu. ft.
- 1/6" (4.23 mm) x 48" (1,219.2 mm) x 1,250 ft. (381 m) foam, C12" (304.8 mm)–C24" (609.4 mm), P12" (304.8 mm)
- Expanded polypropylene (EPP) corners with a density of 1.90 lb./pi³ (30.44 kg/m3)
- 63–80 gauge polyethylene (PE) stretch film
- 39 gauge, 12.5" (317.5 mm) X 1,476 ft. (449 m) ECO blown pre-stretched film
- 1.5" (38.1 mm) x 1.75" (44.45 mm) x 1.5" (38.1 mm) x 96" (2,434.4 mm) cardboard edge protectors made of 100% recycled material
- 5/8" (15.875 mm)–0.62" (15.75 mm) x 4,000 ft. (1,219 m) polyester strapping
- 3⁄16" (4.76 mm) x 48" (1,219 mm) x 750 ft. (228.6 m) bubble wrap
- 3⁄16" (4.76 mm) x 4 ft. (1.21 m) x 7.5 ft. (2.28 m) bubble bags
- Wood and laminate pallets

Packaging information is available upon request.

[5] Messih, S. et al. (2019). Guide des meilleures pratiques : Bois de CRD en centre de tri. https://www.recyc-quebec.gouv.qc.ca/sites/default/files/documents/guide-meilleures-pratiques-bois-CRD-centre-de-tri.pdf

[6] Uniboard. (s.d.) Health Product Declaration V2.3. https://uniboard.com/images//centre-de-documentation/ENG/Panels/Environmental-Data-Sheets/635_Particleboard.pdf

[7] Abdelkader Chaala. (2007). IRRST. Réduction de l'émission de formaldéhyde Modification de la formulation du liant dans les usines de panneaux de particules. https://www.irsst.qc.ca/media/documents/PubIRSST/R-528.pdf?v=2022-04-09#:~:text=Les%20r%C3%A9sines%20%C3%A0%20base%20d,co%C3%BBt%20et%20sa%20grande%20r%C3%A9activit%C3%A9.

Our packaging's 4R properties

Some of our packaging contains recycled, recyclable or recoverable material. Table 7 gives an overview of our packaging's 4R properties.

Table 7 Our packaging's 4R properties

Material	Recycled content	Percentage	Recyclable material
Foam	Pre-consumer	N/A	Recyclablea
	Post-consumer		
Plastic film	Pre-consumer	0%	Recyclablea
	Post-consumer	0%	
Bubble wrap	Undefined	15%	Recyclablea
Corrugated cardboard and cardboard edge protectors	Pre-consumer	0%	Recyclable
	Post-consumer	0%–100%	
Polyester strapping	Pre-consumer	0%	Recyclablea
	Post-consumer	0%	
U-Guard edge protectors	Pre-consumer	0%	Recyclable
	Post-consumer	100%	
EPP corners	Pre-consumer	0%	Recyclable
	Post-consumer	0%	
Wood pallets	Pre-consumer	0%	Recyclablea
	Post-consumer	0%	
Laminate pallets	Pre-consumer	88%	Energy recovery
	Post-consumer	0%	
Cardboard boxes	Pre-consumer	N/A	Recyclable

[a] Recyclable under certain conditions.

To help us reduce our pallet waste, a portion of our pallets are covered by a deposit and returnable to our suppliers. Others are simply reused. Wood pallets that do not get reused are ground up and sent to one of our partners to be recovered. Some of our pallets are made with laminate panels that would otherwise end up in a landfill.

You can find more information about our packaging's recycled content and recycling and recovery pathways in **APPENDIX I**.

ALTERNATIVES TO TOXIC SUBSTANCES

The goals of our procurement strategy and environmental policy require us to put forth every effort to reduce our use of toxic substances. Whenever possible, we try to find safer alternatives to certain chemicals and limit our emissions of contaminants into the environment.

Adhesives

As a preventative measure, Logiflex is making great efforts to eliminate or replace these dangerous substances. In our search for alternatives, we found a solvent-free, water-based adhesive for the foam we use in our soft seating and chairs. We are continuing to take steps to replace as many harmful products as we can.

See the safety data sheet for the foam adhesive in **APPENDIX J**.

Storage, training and handling mechanisms have been implemented to help minimize contamination risks. We also keep an internal inventory list of harmful products and their safety data sheets. This list is available upon request.

VOC emissions

A larger number of volatile organic compounds (VOCs) are present in the atmosphere, with higher levels sometimes found in buildings. VOCs can come from materials and furniture, among other things. Some of these compounds pose health hazards8 such as irritation of the eyes, nose and throat, headaches, nausea, organ damage and, possibly, cancer.9 We are well aware that VOCs emitted from our furniture could have a harmful impact, which is why we take great care to comply with North American standards.

[8] UL Solutions. (s.d.). UL Greenguard Certification Program. https://www.ul.com/resources/ul-greenguard-certification-program

[9] Environmental Protection Agency (EPA). (2016). Indoor Air Quality. Volatile Organic Compound's Impact on Indoor Air Quality. https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality

CERTIFICATIONS

In keeping with our vision, we make an effort to choose reputed materials that meet current environmental standards. Logiflex is regularly audited by external auditors to ensure we meet and honor our commitments.

Indoor Advantage Gold

SCS Global Services (SCS) provides world-class leadership in third-party quality, environmental and sustainability verification, certification, auditing, testing and standards development. SCS programs span a wide cross-section of industry sectors, including furniture manufacturing.

Indoor Advantage Gold certification is SCS Global Services' highest level of indoor air quality performance for furniture. The certification guarantees that the furniture supports a healthy indoor environment by meeting strict chemical emission limits for volatile organic compounds (VOCs).

Many Logiflex products are compliant with the ANSI/BIFMA M7.1/X7.1 (R2021), ANSI/BIFMA e.3 (Credits 7.6.1, 7.6.2, 7.6.3) and CDPH/EHLB Standard Method V1.2 2017 test methods for VOC emissions.

See Logiflex's certification in **APPENDIX K** or on Logiflex's website.

ISO 9001: 2015

ISO 9001 certification sets out the International Organization for Standardization's standards for plant quality management systems and is based on seven quality management principles:

- Customer focus;
- Leadership;
- Engagement of people;
- Process approach;
- Improvement;
- Evidence-based decision making;
- Relationship management.

See our ISO 9001: 2015 certificate in **APPENDIX L** or on Logiflex's website.

Forest Stewardship Council – FSC

The Forest Stewardship Council (FSC) is an independent international not-for-profit association that is responsible for properly managing the forest economy while being respectful of the environment. A socially beneficial and economically viable organization, the FSC monitors the management of the world's forests.[10]

Many of our supplier-sourced materials are FSC certified, including:

- Uniboard's laminate;
- Uniboard's MDF;
- Formica's high-pressure laminate;
- Goodfellow inc's. wood components;
- Seatply's wooden chair parts.

See our suppliers' FSC certifications in **APPENDIX M, APPENDIX N, APPENDIX O** or on the FSC website.

[10] Forest Stewardship Council. (s. d.). Home | Forest Stewardship Council. FSC. https://fsc.org/en

CERTIFICATIONS

Formaldehyde – CARB 2 standard

Phase two of the California Air Resources Board's (CARB) regulatory framework came into effect in the United States in 2009. In 2010, the US government signed the Formaldehyde Standard for Composite Wood Products Act into law. The program defines guidelines for manufacturers and distributors of composite wood and processed products made from composite wood. Uniboard's particle board and MDF are CARB-2 certified.

Eco-Certified Composite (ECC) certification is a voluntary standard developed by the Composite Panel Association (CPA) under the CARB-2 program.[11]

Our primary supplier, Uniboard, holds ECC certification for their laminate and MDF.

See Uniboard's certifications in **APPENDIX P** or on Uniboard's website.

CertiPUR-US Foam

Our foam supplier, Domfoam, is CertiPUR-US certified, which guarantees that their products meet the following criteria:

- Made without PBDE flame retardants;
- Made without mercury, lead and other heavy metals;
- Made without formaldehyde;
- Made without phthalates regulated by the Consumer Product Safety Commission;
- Low levels of VOC emissions.[12]

See Domfoam's certificate in **APPENDIX Q**. For more information about the program, visit CertiPUR-US's website.

Contribution LEED

Leadership in Energy and Environmental Design (LEED) is a green-building verification program that offers multiple rating systems. Our products can help earn LEED points for "Building Design and Construction" and "Interior Design and Construction" credits.[13]

See the LEED summary tables in **APPENDIX R** and **APPENDIX S** or on Uniboard's website.

[12] Composite Panel Association. (s.d.). Surface and Panel Buyers Guide. Composite Panel Association.http://www.compositepanel.org/cpa-green/go-ecc-green.html

[13] CertiPUR-US. (s.d.). Foams that feel good and you can feel good about. https://certipur.us/

USGBC. (2007). LEED Rating System. https://www.usgbc.org/leed

IMPROVING OUR ENVIRONMENTAL FOOTPRINT

Ambition is one of the two pillars on which Logiflex was built. Given that, it would be inconceivable for us not to step up our environmental efforts.

Other initiatives

Although we still have a ways to go to meet our environmental responsibility goals, we are proud of the many initiatives we have spearheaded to reduce our impact on the environment, including the following:

- Reducing the use of toluene[14] in our manufacturing processes, as it can be harmful to human health and the environment.[15] Between 2010 and 2020, we successfully cut toluene use by around 50%.
- Switching our conveying system for the wood fine co-products from our production process from a flexible plastic tubing system to a metal conveyor in order to decrease laminate dust overflow
- Using fewer cases of paper each year by posting price lists online only. Our paper usage dropped from 1.54 tons in 2015 to 0.36 tons in 2022.
- Printing fewer promotional booklets. Our promotional booklets for the 2022 launch of our new Xtension collection were completely digitized and interactive features were added, although we did distribute a few printed copies. We also reduced the size of our printed booklet from 24 pages (previous versions) to eight pages.
- Acquiring a compactor to make recycling cardboard easier. In 2022, 27,817 tons of cardboard and paper were collected for recycling.
- Reusing laminate trimmings in our chair and soft seating department to make internal structures and in our packaging department to reinforce distribution pallets
- Reusing discontinued fabric for interior finishing of soft seating
- Returning foam trimmings to our supplier, Domfoam
- Shipping most products by the full truckload to maximize space and reduce travel time and shipping costs
- Installing new production equipment in 2010 to improve edging application quality, in turn reducing rework and energy consumption
- Transferring a part of our chair production process to our partner, TEC, in 2023. This will help us reduce the amount of propane needed to operate Logiflex's soft seating and chair plant.
- Setting up a pallet recycling container. Recycled pallets are sent to a partner for energy recovery.
- Introducing hybrid and remote work to reduce GHG emissions from employee commuting. This affects over 60 Logiflex employees.

More information about these initiatives is available upon request.

Environmental data sheets

Environmental data sheets allow consumers to take a quick look at a Logiflex product's eco-friendly features. Logiflex has started developing environmental data sheets to cover our whole range of standard products.

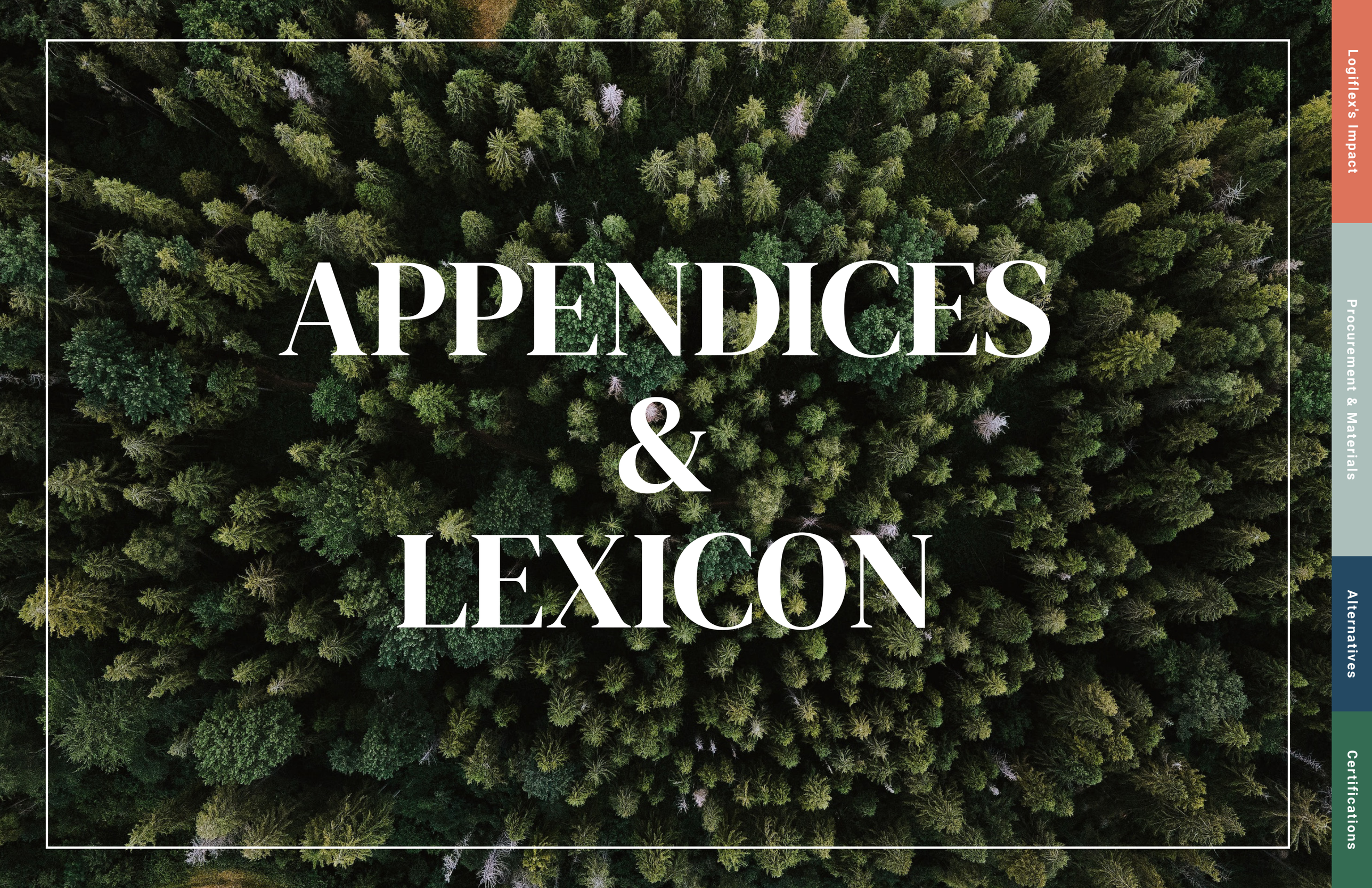
See Logiflex's Environmental Data Sheets on Logiflex's website : Canada or USA

Goals

- Develop and publish a carbon footprint report that can be used to establish a GHG reduction plan
- Continue our efforts to find alternatives to chemicals of concern
- Develop a sustainable responsible procurement policy and a supplier code of conduct
- Keep our ISO 9001: 2015 and Indoor Advantage Gold certifications
- Improve the energy efficiency of our facilities;
- Improve our waste management processes

[14] Gouvernement du Canada, Santé Canada et Environnement Canada. (1992). Loi canadienne sur la protection de l'environnement, Liste des substances d'intérêt prioritaire, Rapport d'évaluation n 4o, Toluène.

[15] Agency for Toxic Substances and Disease Registry. (2014). Medical Management Guidelines for Toluene. Toxic Substances Portal. https://wwwn.cdc.gov/TSP/MMG/MMGDetails.aspx?mmgid=157&toxid=29



APPENDICES & LEXICON

APPENDIX A – ENVIRONMENTAL POLICY

Logiflex has specialized in the manufacture of laminate office furniture since its inception in 1993. We are proud that our products help provide more enjoyable work environments to thousands of workers across North America year after year. As our company has grown, so too has our awareness of the potential impact of our operations and products on the local and global community. In order to live up to this responsibility, we have developed an environmental policy that brings together the main environmental and social principles that guide our efforts and decisions.

A corporate citizen

Logiflex is committed to complying with or exceeding the requirements of current environmental performance laws and regulations. As an organization with partners in many countries around the world, we understand that our efforts are interconnected, which is why we take both our local standards and those recognized by our customers and partners into consideration.

Chemical management

Logiflex is committed to reducing the environmental risks associated with our operations by minimizing the risk of environmental accidents caused by our production process. We make it a point to assess all chemical and toxic products and replace them with greener alternatives whenever possible to minimize potential contamination and exposure among employees.

Continuous improvement

Logiflex is committed to improving our environmental footprint at each stage of the process, from developing a responsible purchasing strategy to managing residual waste.

- We prioritize local suppliers who are also trying to reduce their environmental footprint.
- Management supports all efforts aimed at reducing, reusing, recycling or recovering materials resulting from our production chain.
- Logiflex's goal is to improve energy efficiency by optimizing our manufacturing processes.
- We commit to setting concrete environmental performance goals for ourselves and regularly track progress toward achieving our targets.

Transparency

Logiflex prioritizes transparency in our operations. We share our environmental policy with our company's various stakeholders, including our internal stakeholders, partners and customers. Our approach includes providing environmental education and outreach initiatives to our employees and making our environmental performance information available to the public. This transparency comes with an expectation that our suppliers will operate in a manner consistent with our environmental policy.

APPENDIX B – RESPONSIBLE PROCUREMENT GUIDELINES

Logiflex has specialized in the manufacture of laminate office furniture since its inception in 1993. We are proud that our products help provide more enjoyable work environments to thousands of workers across North America year after year. As our company has grown, so too has our awareness of the potential impact of our operations and products on the local and global community.

This document is another step toward ensuring responsible procurement practices are implemented company-wide. The responsible procurement guidelines presented in this document are consistent with Logiflex's organizational values of ambition and kindness. What follows is an outline of the scope of our guidelines, their legislative and regulatory framework, relevant social and environmental standards, our procurement strategy, our tracking and auditing mechanisms, and our commitments.

Scope

This strategy encompasses all supply chain operations.

Legislative and regulatory framework

Logiflex is committed to complying with or exceeding the laws and regulations on environmental performance, working conditions and human rights currently in effect in Quebec, including:

- The *Sustainable Development Act*
- The *Environment Quality Act*
- The *Act respecting occupational health and safety*
- The *Universal Declaration of Human Rights*;
- The conventions of the International Labour Organization (ILO)
- All other standards, laws or regulations applicable to the company's area of operations

Compliance with labor and human rights standards

Logiflex is committed to sourcing its materials from suppliers who comply with the principles set out in the conventions of the International Labour Organization and the *Universal Declaration of Human Rights*:

Free choice of employment and the abolition of forced labor: Everyone has the right to work and freely choose their employment without being forced to work against their will under threats. Workers have a right to quit their jobs.

Abolition of child labor: The supplier should not employ children under the legal working age (generally 15 years old) or who are below the age of compulsory school attendance.

Non-discrimination in employment and equal remuneration: Everyone, regardless of origin, religion, sex/gender, political opinion or any other distinction, exclusion or preference, should have equal working conditions and employment opportunities.

Freedom of association and right to collective bargaining: Workers have the right to freely associate and establish a union. Suppliers must comply with regulations in effect regarding unions

Decent working conditions. Suppliers are required to provide a work environment that meets hygiene, health and safety requirements. Workers are entitled to have a work environment that is free of hazards and physical and psychological abuse.

Reasonable work hours: A normal work week should not exceed the industry average established by the ILO. Workers are entitled to at least one day of rest per week. Hourly wage should follow the set minimum wage, and overtime must be paid at a higher rate.

A salary that covers basic needs: Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services (Universal Declaration of Human Rights, art. 25).

In keeping with our environmental policy, we choose our suppliers based on the following criteria:

- Logiflex suppliers have an environmental policy that governs their practices.
- The company minimizes the environmental risks related to using chemical and toxic products and opts for greener alternatives whenever possible.
- Partners have mechanisms in place to reduce, reuse, recycle or recover materials resulting from their production chain.
- The company aims to improve its energy efficiency by optimizing its manufacturing processes.
- The organization has set environmental performance goals and regularly tracks its progress toward achieving its targets.

Procurement strategy

The goal of applying the above principles is as follows:

- Reduce our supply radius by choosing local suppliers whenever possible
- Encourage partners with environmental and/or social responsibility certifications
- Favor suppliers who are also working to improve their environmental footprint
- Work with companies that embrace transparency and that are willing to provide information about their environmental and social responsibility performance
- Prioritize working with partners who, at minimum, comply with the environmental and human rights protection laws of their country/province/state of origin
- Share our responsible procurement expectations with suppliers

Tracking and auditing mechanisms

To ensure our procurement process is aligned with our environmental performance goals, Logiflex procures its materials using the above criteria. We reserve the right to ask suppliers questions and request documentation to help us assess whether they meet the listed criteria.

Our commitment

Establishing responsible procurement guidelines is only the first phase of a longer-term strategy.

We commit to sharing our responsible procurement goals and our performance data, both internally and externally, and to providing our partners with the documentation they request.

We plan to develop a code of conduct for our suppliers in order to improve our selection process. We also intend to implement a responsible procurement policy that will be subject to external audits.

Definitions

- Supplier/partner: A company or organization that conducts business with Logiflex for the purpose of providing goods or services.
- Environmental/social responsibility certification: A document issued by an independent organization that certifies that a product or service is compliant (e.g., Indoor Air Advantage Gold).
- Supply chain: All activities ranging from the extraction of raw materials to the delivery of goods or services.
- Environmental policy: Principles adopted by a company to help it account for and improve its environmental footprint.
- Supply radius: The geographic radius in which a company procures materials.
- Environmental footprint: An indicator that helps determine a company's environmental impact.

*This document is a voluntary disclosure that is not based on any external audit mechanism.

APPENDIX C – SUPPLIER CODE OF CONDUCT GUIDELINES

Logiflex's environmental policy and responsible procurement guidelines set out our expectations for suppliers. In keeping with our organization's values of ambition and kindness, we choose our partners based on each company's environmental performance and compliance with labor and human rights standards.

Commitment

We expect our suppliers and partners to comply with or exceed occupational health and safety, human rights and environmental protection laws, regulations and standards, including:

- The *Sustainable Development Act*
- The *Environment Quality Act*
- The *Act respecting occupational health and safety*
- The *Universal Declaration of Human Rights*
- The conventions of the International Labour Organization (ILO)
- All other standards, laws or regulations applicable to the company's area of operations

Compliance with labor and human rights standards

We would like for our suppliers to adopt practices that reflect the following principles, based on the conventions of the International Labour Organization and the *Universal Declaration of Human Rights*:

- Free choice of employment and the abolition of forced labor: Everyone has the right to work and freely choose their employment without being forced to work against their will under threats. Workers have a right to quit their jobs.
- Elimination of child labor: The supplier should not employ children under the legal working age (generally 15 years old) or who are below the age of compulsory school attendance.
- Non-discrimination in employment and equal remuneration: Everyone, regardless of origin, religion, sex/gender, political opinion or any other distinction, exclusion or preference, should have equal working conditions and employment opportunities.
- Freedom of association and right to collective bargaining: Workers have the right to freely associate and establish a union. Suppliers must comply with regulations in effect regarding unions
- Decent working conditions. Suppliers are required to provide a work environment that meets hygiene, health and safety requirements. Workers must have a work environment that is free of hazards and physical and psychological abuse.
- Reasonable work hours: A normal work week should not exceed the industry average established by the ILO. Workers are entitled to at least one day of rest per week. Hourly wage should follow the set minimum wage, and overtime must be paid at a higher rate.
- A salary that covers basic needs: Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services (*Universal Declaration of Human Rights*, art. 25).

Environmental practices

Logiflex suppliers should comply with the following procurement criteria:

- Logiflex suppliers should have an environmental policy that governs their practices.
- The company should minimize the environmental risks related to using chemical and toxic products and opt for greener alternatives whenever possible.
- Suppliers are expected to have mechanisms in place to reduce, reuse, recycle or recover materials resulting from their production chain.
- The company should aim to improve its energy efficiency by optimizing its manufacturing processes.
- Suppliers are expected to make efforts to improve their environmental footprint, including setting environmental performance goals and regularly tracking their progress toward achieving their targets.

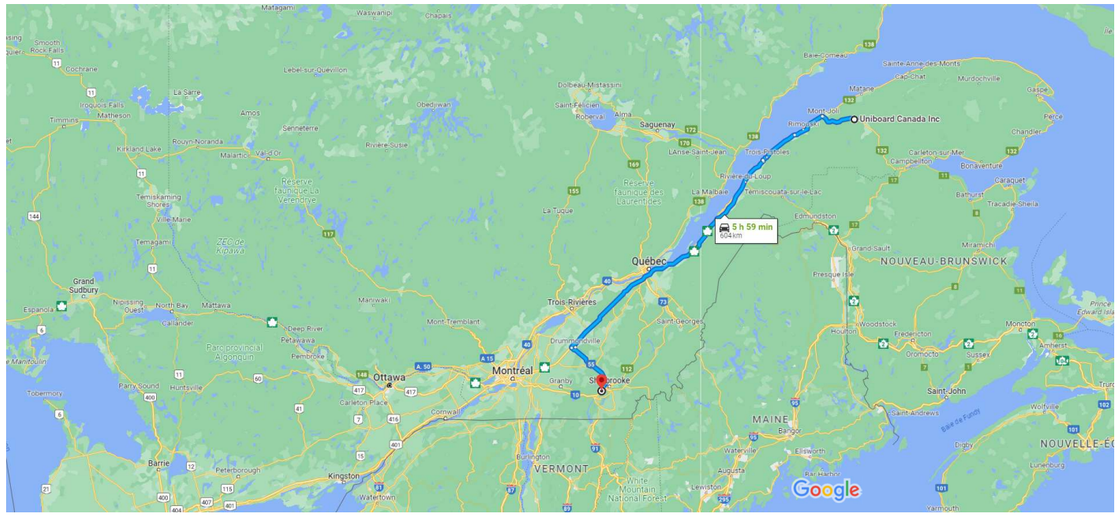
Audit

Logiflex reserves the right to ask suppliers questions and request documentation regarding their environmental performance and compliance with labor and human rights standards. We will never knowingly do business with a supplier found to be violating rules and regulations currently in effect or engaging in shady practices.

APPENDIX D – ROUTE BETWEEN THE LOGIFLEX FACTORY AND THE UNIBOARD PLANT IN SAYABEC

20/04/2023 09:49 Uniboard Canada Inc à 1235 Chem. Saint-Roch N – Google Maps

Google Maps Uniboard Canada Inc à 1235 Chem. Saint-Roch N Automobile 604 km, 5 h 59 min



Données cartographiques © 2023 Google 50 km

via A 20 5 h 59 min
Le plus rapide selon l'état actuel de la circulation 604 km

Explorer 1235 Chem. Saint-Roch N

Restaurants Hôtels Stations-service Stationne-ments Plus

APPENDIX E – CERTIFICATION SMARTWAY DE NORMANDIN TRANSIT INC.

APPENDIX F –HARDWARE COMPONENTS

In addition to laminate, high-pressure laminate and wood components, Logiflex-made furniture is also made up of other components and hardware.

Slides

Full-extension slides

- Slide depth: 16" (406.4 mm) or 20" (508 mm)
- Load capacity of 100 lb. (45 kg) per drawer
- Locking system available

Quadro slide

- Slide depth: 16" (406.4 mm) or 20" (508 mm)
- Load capacity of 150 lb. (330 kg) per drawer
- Non-visible slide hidden under the drawer
- Locking system available

Handles

- In black, satin nickel, brushed nickel, chrome or white metal
- Wide variety of models available

Locks

- Choice of black or satin nickel locks

Glass or acrylic door with aluminum frame

Glass

- 0.15" (4 mm) thick
- Wide variety of glass available
- Acrylic
- 1/8" (3.175 mm) thick
- Type of acrylic: white or frosted
- Aluminum frame
- 1.96" (50 mm) wide x 0.63" (16 mm) deep
- Galvanized steel corners
- Stainless steel inner screw
- Optional handle and lock

Hardware

- Levelers
- Screws;
- Screws and bolts
- Brackets
- Stiffener:
- Supports
- Dowels
- Metal slides
- Electrical components
- Others

Additional information is available upon request.

APPENDIX G – 3RV CHARACTERISTICS OF MATERIALS

UNIBOARD®

ENVIRONMENTAL DATA SHEET

MEDIUM DENSITY FIBERBOARD (MDF)

Our MDF is a medium density fiberboard that meets California Air Resource Board (CARB) requirements as well as those of the US EPA TSCA Title VI. This product is FSC® (Forest Stewardchip Council®) certified for its chain of custody by Preferred by Nature and ECC™ certified (Eco-Certified Composite) by the Composite Panel Association (CPA). It is made using 100% pre-consumer recycled and recovered wood fiber. Uniboard's MDF is available in a wide array of melamine colors.

VALIDATED ECO-DECLARATION

PRODUCT SPECIFICATIONS

References
Medium Density Fiberboard (MDF) laminated or not laminated

Final manufacturing location
Mont-Laurier, Quebec J9L 3W3
Sayabec, Quebec G0J 3K0
Val-d'Or, Quebec J9P 5G6
CANADA

Composition
Wood fibers, MUF resin, water, wax, scavenger and melamine-cellulose.

ATTRIBUTES

Recycled content
Pre-consumer: 81.4% - 83.7%
Post-consumer: 0%

Sourcing of raw materials
Data collection from suppliers has been conducted for the products components aligned with each specific environmental analysis.

Certified Wood NC-COC-002726

Rapidly renewable materials -

ENVIRONMENTAL IMPACTS

Life Cycle Assessment	-
Reference service life	-
Product's carbon footprint	-

Environmental Product Declaration
Industry-wide (generic) EPD,
Type III, ISO 14025:2006 December 2018 to November 2023
The EPD excludes the laminated product.

INGREDIENTS AND EMISSIONS

Declaration of chemical ingredients	100 ppm
Type of declaration	HPD® version 2.3 Health Product Declaration® October 2022 to October 2025
Emissions test	-
VOC	-
Formaldehyde	≤ 0.11 ppm
Others	TSCA Title VI compliant

TECHNICAL PERFORMANCES

Performance tests
ANSI A208.2-2022/ASTM E84

MANUFACTURER'S ENVIRONMENTAL MANAGEMENT

ISO 14001 Certification	-
Extended Product Responsibility (Take Back Program)	-
Corporate Sustainability Report (CSR: GRI, ISO 26000, BNQ 21000 or others)	-

CERTIFICATION(S) & CONFORMITIES

FSC www.fsc.org FSC® C002807 The mark of responsible forestry

TSCA TITLE VI COMPLIANT

SUSTAINABLE USE OF WOOD FIBER ECO-CERTIFIED

Uniboard Canada Inc. is a leading North American manufacturer of engineered wood products, with installed capacity of over 660 million square feet of raw particleboard, high-density and medium-density fiberboard, of wich over 50% is converted into value-added TFL.

5555, Ernest Cormier Street – Suite 100, Laval, H7C 2S9, QC, Canada
www.uniboard.com

Master Format : **06 42 00**
Validated Eco-Declaration : **VED16-1068-04**
Original issue date : **05/2016**
Period of validity : **2022/08** to **2023/08**

VERTIMA VALIDATED ECO-DECLARATION

Uniboard Particleboard Recycled Content Declaration

LEED® SPECIFICATION SHEET
FORMICA® BRAND LAMINATE GRADES 10, 12 & 20

Project information		
Project name		
LEED version		

Formica® Brand product information		
Product **Grade 10 General Purpose (HGS)** **Grade 12 Horizontal Postforming (HGP)** **Grade 20 Vertical Postforming (VGP)**		Square feet of product 0
Name(s)		Material price per square feet 0
Number(s)		

LEED credit information		
MR Credit 2 Construction waste management	Formica® Brand products can be specified to use recyclable packing materials or blanket wraps for delivery. **Points: 1 or 2** (50% or 75% waste diversion)	Formica® Brand products can indirectly contribute to this credit. There are no additional Formica® sheets that are required to upload for this credit.
MR Credit 4 Recycled content	**Grade 10 General Purpose (HGS): 9% recycled content** 0% pre-consumer / post Industrial Content 9.0% post-consumer content **Grade 12 Horizontal Postforming (HGP): 11% recycled content** 0% pre-consumer / post Industrial content 11% post-consumer content **Grade 20 Vertical Postforming (VGP): 14% recycled content** 0% pre-consumer / post industrial content 14% post-consumer content **Points: 1 or 2** (10% or 20% project recycled content)	Additional information can be downloaded here.
MR Credit 5 Regional materials	Manufactured in Evendale, Ohio 45241 or St. Jean Sur Richelieu, Quebec, J3B 6E9, Canada. **Points: 1 or 2** (requirements vary per LEED version)	See Formica MR Credit 5 template here.
MR Credit 6 Rapidly renewable materials	Formica® Brand products contain a weighted average of 6.5% on Grades 10, 12 and 20 using rapidly renewable eucalyptus wood. **Points: 1** (Based on 2.5% of all building materials)	Upload this sheet for credit compliance.
MR Credit 7 Certified wood	Certification number SCS-CoC-003270 Formica® Brand products comply with FSC requirements **Points: 1** (50% project certified wood)	Chain of custody certificate can be downloaded here.
IEQ Credit 3.2 Construction indoor air quality management plan-before occupancy	Formica® Brand products are GREENGUARD certified for air quality & do not attract or store emissions from other materials. **Points: 1** (Based on flush-out or testing procedures)	Formica® Brand products can indirectly contribute to this credit. There are no additional Formica sheets that are required to upload for this credit.

Formica Laminate Sheet Recycled Content Statement

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability : Stable under normal conditions.

Incompatibility with Other Substances : None.

Hazardous :

Decomposition Products : No hazardous decomposition products are known.

Teknaform Inc. 180 Parr Blvd, Bolton, Ontario L7E 4E6 Canada
T: 905.857.6747 F: 905.857.2602 www.teknaform.com

SECTION 11 - TOXICOLOGY INFORMATION

Effects of Acute Exposure : Under normal operating and processing conditions there are no toxicological effects.

SECTION 12 - ECOLOGICAL INFORMATION

WHMIS No Classification.
OSHA No Classification.

SECTION 13 - DISPOSAL CONSIERATIONS

Waste Disposal: Product should only be disposed of in accordance with Local Regulations. Product can be recycled and repurposed.

SECTION 14 - TRANSPORT INFORMATION

Special Shipping Information : Product should not remain in shipping containers for extended periods of time where excessive temperatures occur.

D.O.T. Not hazardous rated.

SECTION 15 - REGULATORY INFORMATION

WHMIS Classification : None.

TSCA : Listed as Organic Polymer Composite. 9002-86-2

PVC field strip recycling information

arauco

Recycled Content Declaration

ARAUCO North America domestic composite panel products are manufactured with recycled and/or recovered wood fiber and may help achieve credit in several programs where use of materials containing recycled content is recognized.

The table below details recycle and recovered data by mill for wood raw materials and composite panel products. Values are calculated on a dry weight basis.

Mill	% Wood Raw Materials	% Other Components - Resin Solids, Other Additives	% Pre-consumer (Post-industrial) Recycle[1] in Wood Raw Materials	% Pre-consumer (Post-industrial) Recycle[1] in Panels	% Post-consumer Recycle[1] in Wood Raw Materials	% Post-consumer Recycle[1] in Panels	% Recovered[2] in Wood Raw Materials	% Recovered[2] in Panels	% Recycled/Recovered in Wood Raw Materials
Sault Ste. Marie, ONT (MDF)	87%	13%	99.63%	86.67%	0%	0%	0.32%	0.17%	100%
St. Stephen, NB (Fibrex®)	87%	13%	7.64%	6.65%	0%	0%	92.36%	80.35%	100%
Bennettsville SC (PB)	85%	15%	91.02%	77.36%	2.97%	2.52%	6.01%	5.10%	100%
Malvern AR (MDF, Moulding)	85%	15%	84.64%	71.94%	0%	0%	15.36%	13.05%	100%
Albany, OR (PB)	87%	13%	98.50%	85.70%	1.47%	1.28%	0.03%	0.02%	100%
Moncure, NC (MDF, Moulding)	82%	18%	72.26%	59.25%	0%	0%	27.74%	22.75%	100%
Grayling, MI (PB)	84%	16%	43.74%	36.74%	0%	0%	56.26%	47.26%	100%

1. Recycled content meets definitions prescribed in International Organization of Standards document, ISO 14021 — Environmental labels and declarations — Self-declared environmental claims (Type II environmental labeling) as well as definitions prescribed in the Composite Panel Association's Eco-certified Composite (ECC) Sustainability Standard CPA 4-19
2. Recovered content meets definitions prescribed in the Composite Panel Association's Eco-Certified Composite (ECC) Sustainability Standard CPA 4-19

Arauco Canada Limited, Arauco North America, Inc.
April 13, 2021.

Declaration of recycled content of MDF purchased from Goodfellow inc.

Opportunities for recyclable and recoverable products in Canada

To find more information on outlets for recyclable and recoverable products

- List of ferrous and non-ferrous metal recyclers in Canada;
- Recycling of PVC edgebanding in Canada;
- Recycling of wooden components in Canada;
- Information on textile recycling in Canada;
- Information on glass recycling in Canada;
- Information on acrylic recycling in Canada;

Opportunities for recyclable and recoverable products in the USA

To find more information on outlets for recyclable and recoverable products

- List of ferrous and non-ferrous metal recyclers in the US;
- Recycling of PVC edgebanding;
- Recycling of wooden components;
- Information on textile recycling in the US;
- Information on glass recycling in the US;
- Information on acrylic recycling in Quebec and a list of companies that recycle plastics;

APPENDIX H – CERTIFICATION OF AUTHORIZATION OF THE LAW ON THE QUALITY OF THE ENVIRONMENT OF THE GREENHOUSES STÉPHANE BERTRAND

Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques
Québec

Sainte-Thérèse, le 29 avril 2014

CERTIFICAT D'AUTORISATION
Loi sur la qualité de l'environnement
(RLRQ, chapitre Q-2, article 22)

Les Serres Stéphane Bertrand inc.
11730, route Sir-Wilfrid-Laurier
Mirabel (Québec) J7N 1P5

N/Réf. : 7610-15-01-03545-10
401125194

Objet : Exploitation d'une chaudière à biomasse

Mesdames,
Messieurs,

À la suite de votre demande de certificat d'autorisation datée du 12 juin 2013, reçue le 12 juin 2013 et complétée le 1er avril 2014, j'autorise, conformément à l'article 22 de la *Loi sur la qualité de l'environnement* (RLRQ, chapitre Q-2), la titulaire mentionnée ci-dessus à réaliser le projet décrit ci-dessous :

Exploitation d'une chaudière à biomasse d'une capacité calorifique nominale de 4 414 kW

L'usine est située au 11 730, route Sir-Wilfrid-Laurier, sur les lots 1 689 819 et 1 809 757 du cadastre du Québec, ville de Mirabel, MRC Mirabel.

Les documents suivants font partie intégrante du présent certificat d'autorisation :

- Demande de certificat d'autorisation avec documents annexés, datée du 12 juin 2013 et signée par Stéphane Bertrand, Président, Les Serres Stéphane Bertrand inc.;
- Lettre concernant des informations additionnelles, datée du 25 février 2014 et signée par Stéphane Bertrand, Président, Les Serres Stéphane Bertrand inc.;
- Documents concernant des informations additionnelles, datés du 3 mars 2014 et signés par Stéphane Bertrand, Président, Les Serres Stéphane Bertrand inc.;

- Rapport de caractérisation - échantillonnage des émissions atmosphériques - Les Serres Stéphane Bertrand - daté de novembre 2013 et signé par Katia Burelle, Consulair;
- Courriel concernant une information additionnelle, daté du 1er avril 2014 et transmis par Louis-Martin Dion, consultant, Jean Gobeil et Associés inc.

En cas de divergence entre ces documents, l'information contenue au document le plus récent prévaudra.

Le projet devra être réalisé et exploité conformément à ces documents.

En outre, ce certificat d'autorisation ne vous dispense pas d'obtenir toute autre autorisation requise par toute loi ou tout règlement, le cas échéant.

Pour le ministre,

HP/SL/cp

Hélène Proteau
Directrice régionale de l'analyse et de l'expertise de Montréal, de Laval, de Lanaudière et des Laurentides

APPENDIX I – 3RV CHARACTERISTICS OF PACKAGING

Sigma Stretch Film®
THE INDUSTRY LEADER

Phone (201) 507-9100 - Fax (201) 507-0447

Recycled Content Statement	January 1st, 2022 – Dec 31st, 2022
Dates Covered:	
Authorized Company Representative:	Brad Blankenship, Technical Manager, Sigma Stretch Film

Sigma Stretch Film does not produce film using post-consumer nor post industrial waste as defined in paragraph 260.7 section "e" of the Federal Trade Commission's *Guide for the Use of Environmental Marketing Claims.* However, significant percentages of reclaimed polyethylene collected from within our own facilities are used in certain blends, but do not qualify as post industrial waste as defined in the aforementioned guide.

Brad Blankenship
Technical Manager
Sigma Stretch film

Riverside CA 92507 Tulsa OK 74107 Shelbyville KY 40065 Lyndhurst NJ 07071 Belleville CN K8N-5A5

Sigma Stretch film plastic wrap recycled material statement

Sigma Stretch Film®
THE INDUSTRY LEADER

Phone (201) 507-9100 - Fax (201) 507-0447

Recyclability of Stretch Film	January 1st, 2022 – Dec 31st, 2022
Dates Covered:	
Authorized Company Representative:	Brad Blankenship, Technical Manager, Sigma Stretch Film

Stretch film supplied from Sigma Stretch Film is made almost entirely of Linear Low Density Polyethylene (LLDPE) with small percentages of other types of polyethylene for property enhancement. All materials used in the production of Sigma Stretch Film are completely recyclable as low density polyethylene and have a RIC classification of 4. This Statement of Recyclability covers all blends produced and supplied by Sigma Stretch Film.

The Resin Identification Code (RIC) was developed in 1988 by the Plastics Industry Association. It was created for workers in the plastic and recycling industry to be able to sort and recycle plastics more efficiently.

Each RIC corresponds to a specific type of resin used in a plastic product. By recycling according to a product's RIC, the product is able to be properly recycled and have its value preserved. Twenty years after its creation, ASTM International, an international standards organization, took over the administration of the RIC.

The RIC only applies to plastic, not glass, paper, or any other recyclable materials.

For more information visit: *https://www.astm.org/cms/drupal-7.51/newsroom/astm-plastics-committee-releases-major-revisions-resin-identification-code-ric-standard*

Brad Blankenship
Technical Manager
Sigma Stretch film

Déclaration de recyclabilité de la pellicule de plastique Sigma Stretch film

Riverside CA 92507 Tulsa OK 74107 Shelbyville KY 40065 Lyndhurst NJ 07071 Belleville CN K8N-5A5

Sigma Stretch film plastic wrap recycled material statement

Sealed Air
Product Care

Bubble Wrap® Brand Limited and Multi-Purpose Grade Air Cellular Cushioning

TECHNICAL INFORMATION SHEET

Bubble Wrap® brand Limited and Multi-Purpose Grade air cellular cushioning products employ a co-extruded barrier layer that is dramatically more resistant to the passage of air than a single layer of polyethylene. Bubble Wrap® brand Limited Grade materials are used for surface protection wrap and/or void fill applications with a very short or no distribution cycle. Bubble Wrap® Multi-Purpose grade cushioning materials are used to protect light to medium weight, semi-rugged products with shorter, predictable distribution cycles.

PROPERTY	REQUIREMENT	TEST METHOD
Creep (Thickness Loss)	20% Maximum air loss, 0.1 psi, 168 hours.	CID A-A-549
Contact Corrosivity	No corrosion, etching	CID A-A-549
Heat-Sealability (Seam Strength)	No separation at 1 lb. Per inch width	Method 2024 of Federa test Method Standard 101
Coefficient of Friction	Less than 1.0	ATSM D1894
Recycled Resin Content	Minimum 15% recycled content	

AIR CELL THICKNESS	ITEM	NOMINAL	METRIC EQUIVALENT
	BM	1/8" (.125")	3.18 mm
	CL, CM	3/16" (.188")	4.80 mm
	TL, TM	5/16" (.313")	7.90 mm
	DL, DM	1/2" (.500")	12.70 mm

10 Old Sherman Turnpike
Danbury, CT 06810-4173

P: 800.648.9093
F: 203.791.3618

SealedAir.com

Corporate Office: Sealed Air Corporation (US)
200 Riverfront Boulevard, Elmwood Park, NJ 07407

NEPCon
Preferred by Nature™

FSC™

NEPCon OÜ hereby confirms that the Chain of Custody and Controlled Wood system of
Cascades Containerboard Packaging, a division of Cascades Canada ULC/ Cascades Emballage carton-caisse, une division de Cascades Canada ULC
77, boul. Marie-Victorin
Candiac, QC
Canada

has been assessed and certified as meeting the requirements of
FSC-STD-40-003 V2-1; FSC-STD-40-004 V3-0; FSC-STD-40-005 V3-1; FSC-STD-40-007 V2-0

The certificate is valid from 06-03-2020 to 05-03-2025
Certificate version date: 04-03-2020

Scope of certificate
Certificate type: Multisite Chain of Custody and Controlled Wood

Certificate registration code
NC-COC-000747 NC-CW-000747
RA-COC-000747 RA-CW-000747

FSC License Code
FSC-C018029

Laura Terrall Kohler
Director, NEPCon Assurance
Filosoofi 31, Tartu
Estonia

Specific information regarding products and sites is listed in the appendix(es) of this certificate. The validity and exact scope covered by this certificate shall always be verified at www.info.fsc.org.

FSC™ A000535 | The mark of responsible forestry | www.ic.fsc.org

This certificate itself does not constitute evidence that particular product supplied by the certificate holder is FSC™ certified [or FSC Controlled Wood]. Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on invoices and shipping documents. The physical printed certificate remains the property of NEPCon OÜ and shall be returned upon request.

Preferred by Nature™

Annex A: Scope of Cascades FSC™ Chain of Custody and Controlled Wood Certificate
NC-COC-000747 NC-CW-000747
RA-COC-000747 RA-CW-000747

(The list below shows products handled by the network of Participating Sites)

Product Type	Trade Name	Output FSC Claims
P3	Paperboard	FSC Mix Credit
P4	Corrugated paper, Corrugating medium, Paperboard	FSC Mix Credit; FSC Controlled Wood; FSC Recycled Credit
P5	Cardboard boxes (corrugated and flat)	FSC Mix Credit; FSC Recycled Credit
W1	Rough Wood	FSC 100%; FSC Mix Credit; FSC Controlled Wood

Annex B: Scope of Cascades FSC™ Chain of Custody and Controlled Wood Certificate
NC-COC-000747 NC-CW-000747
RA-COC-000747 RA-CW-000747

No	Site Name	Address	Sub-code
1	Greenpac Mill LLC	4400 Royal Avenue Niagara Falls New York 14303 United States	---
2	Cascades Containerboard Packaging - Bird a division of Cascades Canada ULC	670 Southgate Dr., Guelph Ontario Canada	---
3	Cascades Containerboard Packaging - Niagara Falls, a division of Cascades Holding US Inc.	4001 Packard Road Niagara Falls, New York 14303-2297 United States	---
4	Cascades Containerboard Packaging - Schenectady, a division of Cascades Holding US Inc	801 Corporation Park Schenectady New York 14086 United States	---
5	Cascades Containerboard Packaging - Lancaster, a division of Cascades Holding US Inc	One Aim Place, 4444 Walden Avenue Lancaster New York 14086 United States	---
6	Cascades Containerboard Packaging - Newtown, a division of Cascades Holding US Inc	1Edmond Road Newtown CT 6470 United States	---
7	Cascades Containerboard Packaging - Cabano, a division of Cascades Canada ULC	520, rue Commerciale Nord Temiscouata-sur-le-Lac Quebec G0L 1E0 Canada	---
8	Cascades Containerboard Packaging - Drummondville, a division of Cascades Canada ULC	600, rue Janelle Drummondville Quebec J2C 5Z3 Canada	---
9	Cascades Containerboard Packaging - Kingsey Falls, a division of Cascades Canada ULC	398, rue Marie-Victorin, C.P. 119 Kingsey Falls Quebec J0A 1B0 Canada	---

This certificate itself does not constitute evidence that particular product supplied by the certificate holder is FSC™ certified [or FSC Controlled Wood]. Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on invoices and shipping documents. The physical printed certificate remains the property of NEPCon OÜ and shall be returned upon request.

Annex B: Scope of Cascades FSC™ Chain of Custody and Controlled Wood Certificate
NC-COC-000747 NC-CW-000747
RA-COC-000747 RA-CW-000747

No	Site Name	Address	Sub-code
10	Cascades Containerboard Packaging - Viau, a division of Cascades Canada ULC	2755, rue Viau Montreal Quebec H1V 3J4 Canada	---
11	Cascades Containerboard Packaging - Vaudreuil, a division of Cascades Canada ULC	400, rue Forbes Vaudreuil-Dorion Quebec G6T 1V8 Canada	---
12	Cascades Containerboard Packaging - Victoriaville, a division of Cascades Canada ULC	400, boul. de la Bonaventure Victoriaville Quebec G6T 1V8 Canada	---
13	Cascades Containerboard Packaging - Trenton, a division of Cascades Canada ULC	300 Marmora Street, P.O. Box 807 Trenton Ontario K8V 5R8 Canada	---
14	Cascades Containerboard Packaging - Etobicoke, a division of Cascades Canada ULC	450 Evans Avenue Etobicoke Ontario M8W 2T5 Canada	---
15	Cascades Containerboard Packaging - Lithotech, a division of Cascades Canada ULC	5910 Finch Ave E Scarborough Ontario M1B 5P8 Canada	---
16	Cascades Containerboard Packaging - Mississauga, a division of Cascades Canada ULC	7447 Bramalae Road Mississauga Ontario L5S 1L9 Canada	---
17	Cascades Containerboard Packaging - St. Mary's, a division of Cascades Canada ULC	303 James Street South, P.O. Box 1090 St-Marys Ontario N4X 1B7 Canada	---
18	Cascades Containerboard Packaging - Vaughan, a division of Cascades Canada ULC	655 Creditstone Road Vaughan Ontario L4K 5P9 Canada	---

Preferred by Nature™

Annex B: Scope of Cascades FSC™ Chain of Custody and Controlled Wood Certificate
NC-COC-000747 NC-CW-000747
RA-COC-000747 RA-CW-000747

No	Site Name	Address	Sub-code
19	Cascades Containerboard Packaging - Belleville, a division of Cascades Canada ULC	340 University Avenue Belleville Ontario K8N 5T6 Canada	---
20	Cascades Containerboard Packaging - Richmond, a division of Cascades Canada ULC	3300 Viking Way Richmond British Columbia V6V 1N6 Canada	---
21	Cascades Containerboard Packaging - Calgary, a division of Cascades Canada ULC	416, 58th Avenue S.E., P.O. Box 5215 Calgary Alberta T2H 1X3 Canada	---
22	Cascades Containerboard Packaging - Winnipeg, a division of Cascades Canada ULC	680 Wall Street Winnipeg Manitoba R3G 2T8 Canada	---
23	Cascades Containerboard Packaging - Piscataway, a division of Cascades Holding US Inc	1 Turner Place Piscataway New Jersey 08854 United States	---

This certificate itself does not constitute evidence that particular product supplied by the certificate holder is FSC™ certified [or FSC Controlled Wood]. Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on invoices and shipping documents. The physical printed certificate remains the property of NEPCon OÜ and shall be returned upon request.

610 Bériault
Longueuil, QC J4G 1S8
Tel: 450-651-8887
Fax: 450-679-6401
www.ivexpackaging.com

Protective Packaging

IVEX SINGLEFACE SPECIFICATIONS

IVEX STANDARD SINGLEFACE ROLLS

- Flute & Liner are brown 18# recycled medium paper (100% post-consumer)
- Starch-based adhesive
- Weight is ±1.0 lb per inch of width

- A-flute profile is 0.182" high with 33 flutes per foot
- B-flute profile is 0.091" high with 47 flutes per foot
- C-flute profile is 0.142" high with 39 flutes per foot
- E-flute profile is 0.062" high with 80 flutes per foot

IVEX CUSTOM SINGLEFACE PRODUCTS

- Specifications available upon request

Recycled Material Declaration of IVEX Corrugated Products

Opportunities for recyclable products in Canada

To find more information about outlets for recyclable packaging:

- List of plastic, PVC and polystyrene recycling companies in Canada;
- List of Cardboard recycling companies in Canada;
- List of polyester strapping (PET) recycling companies in Canada;
- Information on the recycling of EPP corners.

Opportunities for recyclable products in the USA

To find more information about outlets for recyclable packaging:

- Information on the recycling of packing foam;
- List of plastic recyclers in the US;
- Information on the recycling of cardboard angles and corrugated cardboard;
- Information on the recycling of polyester belts;
- Information on the recycling of EPP corners.

APPENDIX J – SAFETY DATA SHEET FOR WATER-BASED SOLVENT-FREE GLUE

SABA

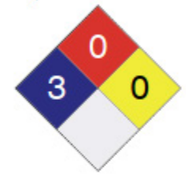
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	**SABA Aquabond RSD 3801**
CAS #	Mixture
Product use	Adhesive
Manufacturer	SABA Dinxperlo BV Industriestraat 3 P.O. Box 3 NL - 7090 AA Dinxperlo, NL Phone: + 31 315 658999 Emergency Phone: 1-800-535-5053 (24/7) International Phone: 1-352-323-3500 (Collect)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	3
Flammability		0
Physical Hazard		0
Personal Protection		B



2. Hazards Identification

Emergency overview	DANGER -- CORROSIVE May cause chemical burns to eyes and skin. May cause sensitization by inhalation and skin contact.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	May cause severe irritation or chemical burns.
Skin	May cause severe irritation or chemical burns. Contains a potential skin sensitizer.
Inhalation	Excessive intentional inhalation may cause coughing, sneezing, nasal discharge, respiratory tract irritation, headache, dizziness.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	Eyes. Skin. Respiratory system.
Chronic effects	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
1,3-Butadiene, 2-chloro-, homopolymer	9010-98-4	30 - 60
Rosin	8050-09-7	1 - 5
Zinc oxide	1314-13-2	1 - 5
Potassium hydroxide	1310-58-3	0.1 - 1

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.
Notes to physician	Symptoms may be delayed.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Hydrogen chloride. Some metallic oxides.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
1,3-Butadiene, 2-chloro-, homopolymer	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Potassium hydroxide	**ACGIH-TLV** Ceiling: 2 mg/m3 **OSHA-PEL** Not established
Rosin	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Zinc oxide	**ACGIH-TLV** TWA: 2 mg/m3 STEL: 10 mg/m3 **OSHA-PEL** TWA: 5 mg/m3

Engineering controls	General ventilation normally adequate.
Personal protective equipment	
Eye / face protection	The following eye protection(s) are recommended (specially during all handling except during spray application): safety glasses with side shields.
Hand protection	Use of rubber gloves recommended. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Liquid
Color	White. Blue. pink.
Form	Liquid
Odor	weak, Characteristic
Odor threshold	Not determined
Physical state	Liquid
pH	12.8
Melting point	May solidify at 0°C (32°F) based on data for: water.
Freezing point	May solidify at 0°C (32°F) based on data for: water.
Boiling point	212.00 °F (100 °C)
Flash point	Non-combustible. Non-flammable substance.
Pour point	Not determined
Evaporation rate	30 - 40 (Water) compared with Ether (anhydrous)
Flammability limits in air, lower, % by volume	Not determined
Flammability limits in air, upper, % by volume	Not determined
Vapor pressure	23 hPa
Vapor density	Not determined

Specific gravity	1.09 g/cm3
Octanol/water coefficient	Not determined
Solubility (H2O)	Fully miscible
Auto-ignition temperature	Not determined
VOC (Weight %)	Not determined
Viscosity	1750 mPas
Bulk density	Not determined
Percent volatile	Not determined

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Reacts violently with acids. This product may react with oxidizing agents. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Hydrogen chloride. Some metallic oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
1,3-Butadiene, 2-chloro-, homopolymer	Not determined
Potassium hydroxide	Not determined
Rosin	Not determined
Zinc oxide	Not determined

Component analysis - Oral LD50

Ingredient(s)	LD50
1,3-Butadiene, 2-chloro-, homopolymer	Not determined
Potassium hydroxide	214 mg/kg rat
Rosin	> 2000 mg/kg rat
Zinc oxide	7950 mg/kg mouse; 5000 mg/kg rat

Effects of acute exposure

Eye	May cause severe irritation or chemical burns.
Skin	May cause severe irritation or chemical burns. Contains a potential skin sensitizer.
Inhalation	Excessive intentional inhalation may cause coughing, sneezing, nasal discharge, respiratory tract irritation, headache, dizziness.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitization	Contains a potential respiratory tract sensitizer. Contains a potential skin sensitizer.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Non-hazardous by WHMIS/OSHA criteria.

IARC - Group 3 (Not Classifiable)

1,3-Butadiene, 2-chloro-, homopolymer	9010-98-4	Supplement 7 [1987]; Monograph 19 [1979]

Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Synergistic Materials	Not available

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae Data

Rosin	8050-09-7	72 Hr EC50 Desmodesmus subspicatus: 400 mg/L

Ecotoxicity - Freshwater Fish Species Data

Potassium hydroxide	1310-58-3	96 Hr LC50 Gambusia affinis: 80 mg/L [static]

Ecotoxicity - Water Flea Data

Rosin	8050-09-7	48 Hr EC50 Daphnia magna: 3.8 - 5.4 mg/L

Environmental effects	Not determined
Aquatic toxicity	Not determined
Persistence / degradability	Not determined
Bioaccumulation / accumulation	Not determined
Partition coefficient	Not determined Not determined
Mobility in environmental media	Not determined
Chemical fate information	Not determined
Other adverse effects	Not determined

13. Disposal Considerations

Waste codes	Not regulated.
Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose in accordance with all applicable regulations.
Contaminated packaging	Dispose in accordance with all applicable regulations.

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name	Corrosive liquid, basic, inorganic, n.o.s. (POTASSIUM HYDROXIDE RQ = 185185 lbs)
Hazard class	8
UN number	UN3266
Packing group	III
Additional information:	
Special provisions	IB3, T7, TP1, TP28
ERG number	154

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
Hazard class	8
UN number	UN3266
Packing group	III
Additional information:	
Special provisions	16

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Potassium hydroxide	1310-58-3	1 %
Zinc oxide	1314-13-2	1 %

US Federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Potassium hydroxide	1310-58-3	1000 Lb final RQ; 454 kg final RQ

U.S. - CWA (Clean Water Act) - Hazardous Substances

Potassium hydroxide	1310-58-3	Present

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Potassium hydroxide: 1000.0000
Sodium hydroxide: 1000.0000
1,3-Butadiene, 2-chloro-: 100.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Clean Air Act (CAA) Not available

Clean Water Act (CWA) Not available

WHMIS status Controlled

WHMIS classification Class D - Division 2A, 2B, Class E - Corrosive Material

WHMIS labeling

State regulations Not available

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Potassium hydroxide	1310-58-3	Present
Zinc oxide	1314-13-2	Present (fume)

U.S. - Louisiana - Reportable Quantity List for Pollutants

Potassium hydroxide	1310-58-3	1000 Lb final RQ; 454 kg final RQ

U.S. - Massachusetts - Right To Know List

Potassium hydroxide	1310-58-3	Present
Zinc oxide	1314-13-2	Present (fume)

U.S. - Minnesota - Hazardous Substance List

Potassium hydroxide	1310-58-3	Present
Rosin	8050-09-7	Present (as resin acids - colophony)
Zinc oxide	1314-13-2	Present (dust and fume)

U.S. - New Jersey - Right to Know Hazardous Substance List

Potassium hydroxide	1310-58-3	sn 1571
Zinc oxide	1314-13-2	sn 2037

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Potassium hydroxide	1310-58-3	1000 Lb RQ (air); 100 lb RQ (land/water)

U.S. - Pennsylvania - RTK (Right to Know) List

Potassium hydroxide	1310-58-3	Environmental hazard
Zinc oxide	1314-13-2	Environmental hazard (fume)

U.S. - Rhode Island - Hazardous Substance List

Potassium hydroxide	1310-58-3	Toxic; Flammable
Zinc oxide	1314-13-2	Toxic

Inventory name

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 20-Apr-2010

Effective date 15-Jun-2010

Expiry date 15-Jun-2013

Prepared by Dell Tech Laboratories Ltd. (519) 858-5021

Other information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

APPENDIX K – INDOOR ADVANTAGE GOLD CERTIFICATION

***SCS Global Services** does hereby certify that an independent assessment has been conducted on behalf of:*

Logiflex Inc.

1235 Saint Roch Road N, Sherbrooke, QC, Canada

For the following product(s):

Casegoods:
Elevation Plus, Knockout, Level, Logilife, Manhattan, Millenium, Millenium Quickship, Receptions, Sweet, Wellington

Tables:
Academic, Elevation Plus, Howard, Lennox, Level Multimedia, Link, Magog, Millenium, Orford, Stanstead, Wellington

Excludes wood options

INDOOR ADVANTAGE GOLD FURNITURE

The product(s) meet(s) all of the necessary qualifications to be certified for the following claim(s):

Indoor Advantage™ Gold
Indoor Air quality Certified to SCS-EC10.3-2014 v4.1
Conforms to the ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2021) and ANSI/BIFMA e.3-2019 (Credits 7.6.1, 7.6.2, 7.6.3) for the open plan and private office workstation parameters.[1] Also, conforms to the CDPH/EHLB Standard Method (CA 01350) v1.2-2017 for the open plan and school classroom parameters.[1]

[1] Modeled as a Workstation System

ANSI National Accreditation Board ACCREDITED ISO/IEC 17065 PRODUCT CERTIFICATION BODY

Registration # SCS-IAQ-08494
Valid from: December 16, 2023 to December 15, 2024

SCSglobal SERVICES

Nicole Munoz, Vice President
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

APPENDIX L – ISO 9001 : 2015 CERTIFICATION

Certificate of Registration

nqa global assurance

This is to certify that the Quality Management System of:

Logiflex, Mobilier de bureau
1235 chemin Saint-Roch Nord
Sherbrooke QC J1N 0H2
Canada

applicable to:

Design, manufacturing and marketing of laminate and high pressure laminate office furniture, chairs and sofas.

has been assessed and approved by
National Quality Assurance, U.S.A., against the provisions of:

ISO 9001:2015

Certificate Number: 19860
EAC Code: 14, 23
Certified Since: March 23, 2021
Valid Until: March 22, 2024
Cycle Issued: March 23, 2021

For and on behalf of NQA, USA

ANAB ACCREDITED ISO/IEC 17021 MANAGEMENT SYSTEMS CERTIFICATION BODY

Page 1 of 1

This approval is subject to the company maintaining its system to the required standard, which will be monitored by NQA, USA, 289 Great Road, Suite 105, Acton, MA 01720, an accredited organization under the ANSI National Accreditation Board.

APPENDIX M – UNIBOARD'S FSC CERTIFICATE

Preferred by Nature

FSC

Preferred by Nature OÜ confirme que le système de Chaîne de Traçabilité et Bois Contrôlé de

Uniboard Canada Inc.

5555, rue Ernest-Cormier
H7C 2S9 Laval
Québec
Canada

a été évalué et certifié selon les exigences de
FSC-STD-40-003 V2-1; FSC-STD-40-004 V3-1; FSC-STD-40-005 V3-1; FSC-STD-40-007 V2-0; FSC-STD-50-001 V2-1 EN

Le certificat est valide du 2 décembre 2022 au 1 décembre 2027
Date de la version du certificat : Le 2 décembre 2022

Portée du certificat
Type de certificat: Multi-sites Chaîne de Traçabilité et Bois Contrôlé

Code d'enregistrement du certificat
NC-COC-002726
NC-CW-002726

Code de Licence de la marque FSC
FSC-C002807

Justinas Janulaitis
Management board member
Filosoofi 31, Tartu
Estonia

L'information spécifique concernant les produits et les sites est listée en annexe de ce certificat. La validité et la portée exacte couvertes par ce certificat doivent toujours être validées sur le site web info.fsc.org.

Organisme de certification accrédité FSC® (FSC® A000535) | The mark of responsible forestry | www.ic.fsc.org

Ce certificat lui-même ne constitue pas une preuve directe qu'un produit particulier fourni par le titulaire du certificat FSC® soit certifié [ou FSC Bois Contrôlé]. Les produits proposés, expédiés ou vendus par le titulaire du certificat ne peuvent être considérés comme couverts par la portée de ce certificat lorsque la déclaration FSC requise est clairement indiquée sur les factures et documents d'expédition. Le certificat imprimé est la propriété de Preferred by Nature OÜ et doit être retourné sur demande.

APPENDIX N – FORMICA'S FSC CERTIFICATE

SCS Global Services *does hereby certify that an independent audit has been completed and conformity to the applicable standard(s) has been confirmed for:*

Formica Corporation

10155 Reading Road, Cincinnati, OH 45241, United States
Please see addendum for additional certified locations.

This multi-site certificate covers the production and distribution of high pressure decorative laminates, metalized paperboard laminates, and specialty paper using the transfer, percentage, and credit systems. The certificate also covers the sale of FSC Controlled Wood.

The facility(s) are hereby Chain of Custody certified to sell products as:

FSC Controlled Wood; FSC Mix

The assessment has been conducted by SCS Global Services in accordance with the protocols of the Forest Stewardship Council® A.C. (FSC®).

FSC Standard: FSC-STD-40-003; FSC-STD-40-004

Certificate Code: SCS-COC-003270 Trademark License Code: FSC-C092610
CW Code: SCS-CW-003270
Valid from: 28 May 2021 Expiry date: 27 May 2026

This certificate itself does not constitute evidence that a particular product supplied by the certificate holder is FSC-certified (or FSC Controlled Wood where applicable). Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on sales and delivery documents. The scope of this certificate is considered accurate on the date of issuance. The current validity and scope, including the full list of products, shall be verified on http://info.fsc.org. The certificate shall remain the property of SCS, and this certificate and all copies or reproductions of this certificate shall be returned to SCS immediately upon request. Where a certificate covers more than one site, the covered products and processes/ activities are performed by the network of Participating Sites, and not necessarily by each of them.

FSC
www.fsc.org
FSC® A000521

The mark of responsible forestry

RESPONSIBLE FORESTRY CERTIFIED SCS GLOBAL SERVICES

SCSglobal SERVICES

Maggie Schwartz, Director, Chain of Custody
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

Printed: 28 May, 2021

APPENDIX O – CERTIFICAT FSC GOODFELLOW INC.

CERTIFICATE OF REGISTRATION

This is to certify that

Arauco North America, Inc., Arauco Canada Limited

400 Perimeter Center Terrace, Suite 750, Atlanta, Georgia, 30346, USA
Refer to Attachment to Certificate of Registration dated March 3, 2022 for additional certified sites

complies with the requirements of

Forest Stewardship Council® - Chain of Custody Standard and Controlled Wood Standard

for the following scope of certification

Tracking of wood based material.
Product types: P1 Pulp, P2 Paper, W5 Solid wood, W6 Products from planning mill, W8 Wood pannels, W9 Engineering wood products, W10 Wood package and similar, W11 Wood for construction.
Claim: FSC MIX, FSC Controlled wood.
System(s) used: Transfer, Credit.
Certificate Type: Multisite.
Standards version: FSC-STD-40-003 V2-1, FSC-STD-40-004 V3-0, FSC-STD-40-005 V3-1, FSC-STD-40-007 V2-0, FSC-STD-50-001 V2-0.

Certificate No.:	CERT-0130539	Issue Date:	March 3, 2022
File Number:	1721688	Original Certification Date:	January 15, 2001
FSC Code:	SAI-COC-003948 SAI-CW-003948	Certification Effective Date:	February 9, 2021
Issue number:	5	Certification Expiry Date(1):	September 22, 2023

Calin Moldovean
President, Business Assurance
SAI Global Assurance

FSC www.fsc.org — The mark of responsible forestry — FSC® A000519

asi accredited ASI-ACC-026

Registered by:
SAI Global Certification Services Pty Ltd, 680 George St, Level 37-38, Sydney, NSW, 2000, Australia with **QMI-SAI Canada Limited**, 20 Carlson Court, Suite 200, Toronto, Ontario M9W 7K6 Canada **(SAI GLOBAL).** This registration is subject to the **SAI Global** Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, **SAI Global** accepts responsibility only for proven negligence. This certificate remains the property of **SAI Global** and must be returned to them upon request.
To verify that this certificate is current, please refer to the **SAI Global** maintains an On-Line Certification Register:
https://www.saiglobal.com/en-us/assurance/auditing_and_certification/certification_registry/

(1)The validity of this certificate shall be verified on **www.info.fsc.org**
The list of the products groups included in the scope of this certificate may be obtained from **SAI Global Certification Services Pty Ltd** upon request or found at **www.info.fsc.org**. This certificate itself does not constitute evidence that a particular product supplied by the certificate holder is FSC®-certified or FSC® Controlled Wood. Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC® Claim is clearly stated on invoices and shipping documents.

SAI GLOBAL INFORM. INSPIRE. IMPROVE.

ATTACHMENT TO CERTIFICATE OF REGISTRATION

These sites are registered under Certificate No: CERT-0130539 issued on March 3, 2022

File No.		Effective Date
1712382	**Arauco Canada Limited - Sault Ste. Marie MDF** 657 Baseline Road, Sault Ste. Marie, Ontario, P6A 5K6, Canada	August 15, 2019
1712383	**Arauco Canada Limited - St. Stephen MDF** 151 Church St, St. Stephen, New Brunswick, E3L 5H1, Canada	August 15, 2019
1712384	**Arauco North America, Inc. – Moncure MDF** 985 Corinth Road, Moncure, North Carolina, 27559, USA	August 15, 2019
1712386	**Arauco North America, Inc. - Biscoe Treating Facility** 157 ATC Drive, Biscoe, North Carolina, 27209, USA	August 15, 2019
1712387	**Arauco North America, Inc. - Carolina Particleboard** 582 Willamette Road, Bennettsville, South Carolina, 29512, USA	August 15, 2019
1712389	**Arauco North America, Inc. - Grayling Particleboard** 5851 Arauco Road, Grayling, Michigan, 49738, USA	August 15, 2019
1712390	**Arauco North America, Inc. - Malvern MDF** 1275 Willamette Road, Malvern, Arkansas, 72104, USA	August 15, 2019
1712392	**Arauco North America, Inc. - Duraflake Particleboard** 2550 Old Salem Rd NE, Albany, Oregon, 97321, USA	August 15, 2019
1712393	**Arauco Wood Products, Inc. - Distribution Center** 400 Perimeter Center Terrace, Atlanta, Georgia, 30346, USA	August 15, 2019

These registrations are dependent on Arauco Wood Products, Inc., Arauco Canada Limited (File No. 1721688) maintaining their scope of registration to FOREST STEWARDSHIP COUNCIL - CHAIN OF CUSTODY STANDARD AND CONTROLLED WOOD STANDARD

APPENDIX P – CERTIFICATS ECC-CARB 2 UNIBOARD

ECO-CERTIFIED COMPOSITE GRADEMARK CERTIFICATION PROGRAM

CERTIFICATE OF COMPLIANCE

Composite Panel Association
19465 Deerfield Ave, Suite 306, Leesburg, VA 20176

Hereby Affirms That

UNIBOARD CANADA INC

152 POULIOT RD, SAYABEC, QUEBEC, CANADA G0J 3KO

Has Completed and Fulfilled the Requirements of:
CPA 4-19 Eco-Certified Composite (ECC) Standard,
California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM) 93120 and
Environmental Protection Agency (EPA) Toxic Substances Control Act (TSCA) Title VI

PRODUCT SCOPE
Particleboard

ECO-ATTRIBUTES
(To comply with the standard, at least 3 of the following are required)

- ☑ Carbon Footprint
- ☑ Locally Sourced Fiber
- ☑ Recycled, Recovered or Post-Consumer Fiber Content
- ☑ Sustainable Use of Wood Fiber
- ☑ Responsible Wood Sourcing

Mill ID #211
Renewed: March 17, 2022; Expires March 17, 2024
To verify continued certification, visit www.ECCproduct.org

Brian T. Sause
Director – Certification and Industry Affairs

ECO-CERTIFIED COMPOSITE GRADEMARK CERTIFICATION PROGRAM

CERTIFICATE OF COMPLIANCE

Composite Panel Association
19465 Deerfield Ave, Suite 306, Leesburg, VA 20176

Hereby Affirms That

UNIBOARD CANADA

845 JEAN-BAPTISTE REID, MONT LAURIER, QUEBEC, CANADA J9L 3W3

Has Completed and Fulfilled the Requirements of:
CPA 4-19 Eco-Certified Composite (ECC) Standard,
California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM) 93120 and
Environmental Protection Agency (EPA) Toxic Substances Control Act (TSCA) Title VI

PRODUCT SCOPE
Medium Density Fiberboard (MDF)

ECO-ATTRIBUTES
(To comply with the standard, at least 3 of the following are required)

- ☑ Carbon Footprint
- ☑ Locally Sourced Fiber
- ☑ Recycled, Recovered or Post-Consumer Fiber Content
- ☑ Sustainable Use of Wood Fiber
- ☑ Responsible Wood Sourcing

Mill ID #215
Issue Date: January 22, 2019
To verify continued certification, visit ECCproduct.org

Edgar Deomano, Director of Technical and Certification Services

ECO-CERTIFIED COMPOSITE GRADEMARK CERTIFICATION PROGRAM

CERTIFICATE OF COMPLIANCE

Composite Panel Association
19465 Deerfield Ave, Suite 306, Leesburg, VA 20176

Hereby Affirms That

UNIBOARD CANADA INC

2700 JEAN JACQUES COSSETTE, VAL D'OR, QUEBEC, CANADA J9P 5G6

Has Completed and Fulfilled the Requirements of:
Eco-Certified Composite (ECC) Sustainability Standard CPA 4-19

PRODUCT SCOPE
Particleboard

ECO-ATTRIBUTES
(To comply with the standard, at least 3 of the following are required)

- ☑ Carbon Footprint
- ☑ Locally Sourced Fiber
- ☐ Recycled, Recovered or Post-Consumer Fiber Content
- ☐ Sustainable Use of Wood Fiber
- ☑ Responsible Wood Sourcing

Mill ID #209
Renewed: August 15, 2022; Expires: August 15, 2024
To verify continued certification, visit www.ECCproduct.org

Brian T. Sause
Director – Certification and Industry Affairs

APPENDIX Q – CERTIFICAT CERTIPUR-US DOMFOAM

Domfoam

This company has successfully completed all product evaluation, analysis, testing and program requirements and has achieved CertiPUR-US® certification for the following flexible polyurethane foam products. *This certificate was last updated October 27, 2022.*

FOAM FAMILY	LAB REPORT I.D.	RENEWAL DATE mm/dd/yyyy
Conventional foam	N105126057GRR-001c	07/01/2023
Viscoelastic (memory) foam	N105126057GRR-001b	07/01/2023
Viscoelastic (memory) foam w/gel	N105126057GRR-001a	07/01/2023

Alliance for Flexible Polyurethane Foam, Inc.

Executive Director

APPENDIX R – LEED CONTRIBUTION OF UNIBOARD PARTICLEBOARDS

ENVIRONMENTAL DATA SHEET

PARTICULBOARD

UNIBOARD®

PRODUCT CONTRIBUTION SUMMARY

LEED® v4 requirements for Building Design + Construction (BD+C)
New Construction, Core and Shell, Schools, Retail, Data Centers, Warehouse and Distribution Centers, Hospitality and Healthcare.

LEED® v4 requirements for Interior Design + Construction (ID+C)
Commercial Interiors, Retail and Hospitality.

MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR	**Building Product Disclosure and Optimization — Environmental Product Declaration (EPD)** **Option 1: Environmental Product Declaration (1 point)** The product contributes to this credit due to the availability of an industry-wide (generic) EPD (Type III) and is valued as one half (1/2) of a product out of the 20 needed for the purposes of credit achievement.	**Contribute**	**ENVIRONMENTAL IMPACTS** Industry-wide (generic) Type III EPD compliant to ISO 14025:2006 The EPD excludes the laminated product.
MR	**Building Product Disclosure and Optimization — Sourcing of Raw Materials** **Option 2: Leadership extraction practices (1 point)** Requirements - Use products that meet at least one of the responsible extraction criteria: Recycled content, Wood products Certification, Bio-based materials, Extended producer responsibility.	**Contribute**	**ATTRIBUTES** Recycled Content: Pre-consumer: 83.7% - 86.5% FSC®- Certified (When specified)
MR	**Building Product Disclosure and Optimization — Material Ingredients** **Option 1: Material ingredients reporting (1 point)** The product contributes to this credit due to the availability of Health Product Declarations®.They are valued as 1 whole product out of the 20 needed for the purposes of credit achievement.	**Contribute**	**INGREDIENTS AND EMISSIONS** HPD® version 2.3 Health Product Declaration®
INDOOR ENVIRONMENTAL QUALITY		**PRODUCT CONTRIBUTIONS**	
EQ	**Low-Emitting Materials** **Option 1: Product category calculation (1-3 points)** Number of points is dependent on the LEED® rating system and the number of compliant categories. For the Composite Wood category, 100% of composite wood not covered by other categories must meet the Composite Wood Evaluation.	**Does not contribute**	**INGREDIENTS AND EMISSIONS** While the wood composite product meets the TSCA Title VI and/or CARB Phase 2 formaldehyde emissions requirements, it is not NAF or ULEF compliant.

The data included in this Environmental Data Sheet has been provided by the client and the suppliers, who are responsible for its veracity and its integrity. Vertima follows a rigorous protocol, including an on-site audit of the factory, an audit of the manufacturer's supply chain documentation, and the analysis and validation of all supporting documents. However, Vertima cannot be held responsible for false or misleading information that may cause any loss or damage suffered, caused in all or in part, by errors and omissions relative to the collection,m compilation and/or interpretation of data.

Validated Eco-Declaration:
VED16-1068-04
Period of validity:
2022/08 to **2023/08**

ENVIRONMENTAL DATA SHEET

PARTICULBOARD

PRODUCT CONTRIBUTION SUMMARY

LEED® v4 requirements for homes

Applies to single family homes, multi-family (one to three stories), or multi-family (four to six stories). Includes homes and multifamily low-rise and multi-family mid-rise.

MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR Prerequisite	**Certified Tropical Wood** All wood in the building must be nontropical, reused or reclaimed, or certified by the Forest Stewardship Council, or USGBC-approved equivalent. For the purposes of this prerequisite, a tree species is considered tropical if it is grown in a location that lies between the Tropic of Cancer and the Tropic of Capricorn.	**Contribute**	**ATTRIBUTES** The product does not contain any tropical wood.
MR	**Environmentally preferable products** **Option 2 : Environmentally preferable products (1 point)** The product contains at least 25% postconsumer or 50% preconsumer content. Wood products must be Forest Stewardship Council (FSC) Certified, or USGBC-approved equivalent.	**Contribute**	**ATTRIBUTES** Recycled Content: Pre-consumer: 83.7% - 86.5% FSC®- Certified (100%) (When specified)
INDOOR ENVIRONMENTAL QUALITY		**PRODUCT CONTRIBUTIONS**	
EQ	**Low-Emitting Materials (0.5-3 points)** At least 90% of all materials in each category must comply with the California Department of Public Health Standard Method V1.1–2010, using CA Section 01350, Appendix B, New Single-Family Residence Scenario. Composite wood products must be constructed from materials documented to have low formaldehyde emissions that meet the California Air Resources Board requirements for ultra-low-emitting formaldehyde (ULEF) resins or no-added formaldehyde based resins (NAF).	**Does not contribute**	**INGREDIENTS AND EMISSIONS** The product was not tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method (CDPH) v1.1-2010. Also, while the wood composite product meets the TSCA Title VI and/or CARB Phase 2 formaldehyde emissions requirements, it is not NAF or ULEF compliant.

Validated Eco-Declaration:
VED16-1068-04
Period of validity:
2022/08 to **2023/08**

APPENDIX S – CONTRIBUTION LEED DU MDF DE UNIBOARD

ENVIRONMENTAL DATA SHEET

MEDIUM DENSITY FIBERBOARD (MDF)

PRODUCT CONTRIBUTION SUMMARY

LEED® v4 requirements for Building Design + Construction (BD+C)

New Construction, Core and Shell, Schools, Retail, Data Centers, Warehouse and Distribution Centers, Hospitality and Healthcare.

LEED® v4 requirements for Interior Design + Construction (ID+C)

Commercial Interiors, Retail and Hospitality.

MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR	**Building Product Disclosure and Optimization — Environmental Product Declaration (EPD)** **Option 1: Environmental Product Declaration (1 point)** The product contributes to this credit due to the availability of an industry-wide (generic) EPD (Type III) and is valued as one half (1/2) of a product out of the 20 needed for the purposes of credit achievement.	**Contribute**	**ENVIRONMENTAL IMPACTS** Industry-wide (generic) Type III EPD compliant to ISO 14025:2006 The EPD excludes the laminated product.
MR	**Building Product Disclosure and Optimization — Sourcing of Raw Materials** **Option 2: Leadership extraction practices (1 point)** Requirements - Use products that meet at least one of the responsible extraction criteria: Recycled content, Wood products Certification, Bio-based materials, Extended producer responsibility.	**Contribute**	**ATTRIBUTES** Recycled Content: Pre-consumer: 81.4% - 83.7% FSC®- Certified (When specified)
MR	**Building Product Disclosure and Optimization — Material Ingredients** **Option 1: Material ingredients reporting (1 point)** The product contributes to this credit due to the availability of Health Product Declarations®.They are valued as 1 whole product out of the 20 needed for the purposes of credit achievement.	**Contribute**	**INGREDIENTS AND EMISSIONS** HPD® version 2.3 Health Product Declaration®
INDOOR ENVIRONMENTAL QUALITY		**PRODUCT CONTRIBUTIONS**	
EQ	**Low-Emitting Materials** **Option 1: Product category calculation (1-3 points)** Number of points is dependent on the LEED® rating system and the number of compliant categories. For the Composite Wood category, 100% of composite wood not covered by other categories must meet the Composite Wood Evaluation.	**Does not contribute**	**INGREDIENTS AND EMISSIONS** While the wood composite product meets the TSCA Title VI and/or CARB Phase 2 formaldehyde emissions requirements, it is not NAF or ULEF compliant.

Validated Eco-Declaration:
VED16-1068-04
Period of validity:
2022/08 to **2023/08**

ENVIRONMENTAL DATA SHEET

MEDIUM DENSITY FIBERBOARD (MDF)

PRODUCT CONTRIBUTION SUMMARY

LEED® v4 requirements for homes

Applies to single family homes, multi-family (one to three stories), or multi-family (four to six stories). Includes homes and multifamily low-rise and multi-family mid-rise.

MATERIALS AND RESOURCES		PRODUCT CONTRIBUTIONS	
MR Prere-quisite	**Certified Tropical Wood** All wood in the building must be nontropical, reused or reclaimed, or certified by the Forest Stewardship Council, or USGBC-approved equivalent. For the purposes of this prerequisite, a tree species is considered tropical if it is grown in a location that lies between the Tropic of Cancer and the Tropic of Capricorn.	**Contribute**	**ATTRIBUTES** The product does not contain any tropical wood.
MR	**Environmentally preferable products** **Option 2 : Environmentally preferable products (1 point)** The product contains at least 25% postconsumer or 50% preconsumer content. Wood products must be Forest Stewardship Council (FSC) Certified, or USGBC-approved equivalent.	**Contribute**	**ATTRIBUTES** Recycled Content: Pre-consumer: 81.4% - 83.7% FSC®- Certified (100%) (When specified)
INDOOR ENVIRONMENTAL QUALITY		**PRODUCT CONTRIBUTIONS**	
EQ	**Low-Emitting Materials (0.5-3 points)** At least 90% of all materials in each category must comply with the California Department of Public Health Standard Method V1.1–2010, using CA Section 01350, Appendix B, New Single-Family Residence Scenario. Composite wood products must be constructed from materials documented to have low formaldehyde emissions that meet the California Air Resources Board requirements for ultra-low-emitting formaldehyde (ULEF) resins or no-added formaldehyde based resins (NAF).	**Does not contribute**	**INGREDIENTS AND EMISSIONS** The product was not tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method (CDPH) v1.1-2010. Also, while the wood composite product meets the TSCA Title VI and/or CARB Phase 2 formaldehyde emissions requirements, it is not NAF or ULEF compliant.

Validated Eco-Declaration:
VED16-1068-04
Period of validity:
2022/08 to **2023/08**

LEXICON

3RV : Reduce, reuse, recycle. (Recyc-Québec, 2022)

ACT : Association For Contract Textiles.

Aldehydes : Aldehydes are unsaturated organic compounds obtained from an alcohol that has lost a hydrogen atom (dehydrogenated alcohol). Their formula is CnH^2n^O. These compounds are formed by the incomplete combustion of fuels and wood. (Ministry of the Environment, the Fight against Climate Change, Wildlife and Parks, s. d.- b)

ANSI : American National Standards Institute.

ANSI A208.1.99 : Test method for determining formaldehyde emissions from a decorative surface.

ANSI A208.1-2009 : NPA standard that includes definitions, dimensional, physical and mechanical property tolerances and acceptable formaldehyde emissions for different grades of particleboard. (National Particleboard Association and Composite Panel Association, 2009)

ASTM : American Society for Testing and Materials.

ASTM D5511 : Test to determine the level of biodegradation of plastic materials under high solids anaerobic digestion conditions. (ASTM, 2011)

ATCM : Airborne Toxic Control Measures.

ATCM 93120 : Regulations approved by the CARB program to reduce formaldehyde emissions from composite wood products. (California Air Resources Board, s. d.-b)

BIFMA : Business + Institutional Furniture Manufacturers Association.

Biocatalyst : A substance, especially an enzyme, that initiates or modifies the rate of a chemical reaction in a living body; a biochemical catalyst. (Yourdictionary)

CAN/CSA-0160-16 : Canadian standard for formaldehyde emissions from composite wood products. (CSA Group, 2016)

CARB : California Air Resources Board.

CARB 2 : Program defining standards for manufacturers and distributors of composite wood and processed products made of composite wood. (California Air Resources Board, s. d.-a)

Environmental/Social Responsibility Certification : Document issued by an independent organization attesting to the conformity of a product or service (for example, Indoor Advantage Gold).

CFC : Abbreviation for chlorofluorocarbon: a gas used in fridges and, in the past, in aerosols (= a metal container in which liquids are kept under pressure and forced out in drops): CFCs cause damage to the ozone layer. Chemicals, chemical compounds & gases. acetic acid. (Cambridge University Press & Assesment)

Supply chain: All activities from the extraction of raw materials to the delivery of a good or service.

CO^2-eq : A metric measure used to compare the emissions of various greenhouse gases based on their global warming potential (GWP), by converting the amounts of the various gases emitted into the equivalent amount of carbon dioxide with the same warming potential planetary. (Eurostat, 2019)

Volatile organic compounds: Volatile organic compounds (VOCs) are gases and vapors that contain carbon, such as gasoline vapors and solvents (except carbon dioxide, carbon monoxide, methane and chlorofluorocarbons). (Ministry of the Environment, the Fight against Climate Change, Wildlife and Parks, n.d.-b)

CPA Appendix D : Standard dealing with the warping of a melamine panel.

Anaerobic digestion: Decomposition of biomass with a high organic matter content into biogas by the action of microorganisms and in the absence of gaseous oxygen. (Notre-planete.info, n.d.)

ECC : Eco-Certified Composite.

Environmental footprint: Indicator to determine the impact of an organization on the environment.

EPA : U.S. Environmental Protection Agency.

Formaldehyde : A chemical commonly used to kill germs and to preserve laboratory specimens and tissues. It is also used to make building materials (such as wood), glue, fabric, paint, fertilizers, pesticides, and other substances. (National Cancer Institute).

Supplier/Partner: A company or organization that conducts business with Logiflex for the purpose of providing a good or service.

FSC : Forest Stewardship Council.

GHG : Greenhouse Gas Emissions.

HDPL : High pressure decorative laminates.

HPL : High Pressure Laminate.

ISO : International Organization for Standardization.

Lacey Act : American law condemning the illegal import and export of certain plants or animal species and certain wood and paper products. (Uniboard, 2018)

LEED : Leadership in Energy and Environmental Design.

MDF : Medium density fibreboard.

MJ : Megajoules

NEMA – ASTM E-84 : Standard Test Method for Surface Burning Characteristics of Building Materials. (ASTM, 2022)

NEMA : National Electrical Manufacturers Association.

NEMA 3-2005 LD : A standard that covers HDPL sheets made from paper, fabrics or other materials that have been laminated at pressures greater than 5.0 MPa using thermosetting condensation resins as binding agents. (ANSI and NEMA, 2005)

NPA : National Particleboard Association

NSF International 35 : Standard establishing minimum sanitary requirements for materials and manufacture of decorative high pressure laminates (HDPL). (NSF International, 2017)

NSF/ANSI 336 : Evaluation of the durability of commercial upholstery fabrics. The Facts Gold certification is part of this standard. (Association for Contract Textiles, s. d.-b)

Environmental policy: Principles adopted by the company in order to integrate and improve the environmental footprint of the organization.

post-consumer: Materials diverted from the waste stream during the manufacturing process excluding the reuse of materials such as rework, regrind or scrap generated in a process and capable of being recovered in the same process that generated them.(USGBC, 2007)

Post-industrial: Waste generated by a manufacturing process.

Pre-consumer: Waste generated by households or commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for the intended purpose.

PU: Polyurethane-based imitation leather.

PVC: A plastic material called polyvinyl chloride.

Supply radius: Geographical radius in which a company sources its supplies.

PBDE flame retardants: Polybrominated diphenyl ethers are brominated flame retardants. They are present in many materials, including fabrics, because they have the chemical property of rapidly decomposing and releasing halogen radicals which smother the flames. (Ministry of the Environment, the Fight Against Climate Change, Wildlife and Parks, n.d.-a)

Toluene: Volatile, flammable and explosive liquid. Toluene is notably used as a solvent in varnishes, paints, pesticides, etc. (Government of Canada et al. 1992)

TSCA Title VI (40 CFR 770): Toxic substances Control Act Title VI. This section of the regulation indicates formaldehyde emission rates with which manufacturers and distributors of composite wood products must comply. The regulations also include an independent certification program for products such as particle board. (Environmental Protection Agency, 2016)