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ENVIRONMENTAL POLICY

So that we may protect the environment, use our resources in a more efficient way and satisfy our clients, Artopex® is committing itself to setting into place an environmental management system according to ISO 14001 standards. More specifically, we intend to:

- Define and meet its environmental goals;
- Set up the means and the resources necessary to reduce and prevent pollution;
- Respect or surpass applicable environmental regulations;
- Install a continuing process which will enable us to attain higher standards with regards to the environment.

We must all remember that the environment is everybody's business.

Daniel Pelletier, President
2004, January 12

2.0 ENVIRONMENTAL ISSUES

2.1 Environmental Policy
Artopex Plus has a Environmental policy. See Environmental Policy attached.

2.2 VOC
For VOC emission testing, we have collect data from our suppliers. See attached documents, fax and answers from our suppliers. Each individual data sheet for raw material, combined to the manufacturing processes we use make us believe that our furniture will not emit VOC's which will result in an indoor air concentration of greater than 50 ug/m3.

In order to validate that, we also got a quotation from the National Research Council of Canada (NRCC) to perform the tests as per ASTME 6670-01 for VOC emission. Before doing the test we wanted to see which standard would be adopted in Canada (CGSB and/or PWGSC). Bifma is currently working at defining guidelines for the industry. Those requirements are so new, that it took 2 months for the NRCC to provide us with a quotation. It seems like the industry is not geared yet for those standards. If requested for a given contract, we will proceed with the test.

Please refer to our suppliers' correspondence and or data sheets attached for VOC emission.

2.3 FORMALDEHYDE & COMPONENTS
same as 2.2

Please refer to our suppliers' correspondence and or data sheets attached for formaldehyde emission.

2.4 FORMALDEHYDE & SUBSTRATE
Panel products are encapsulated on all sides, except for tables modesty panel and hutches back.

Please refer to Uniboard data sheets attached for formaldehyde emission at 0.3 ppm maximum, section 2.3.

2.5 FORMALDEHYDE & HOLES
Holes in the work surfaces and the gables are filled with a metallic insert. Holes for adjustable shelves in thermally fused laminate are not filled.

Refer to Uniboard data sheets attached for formaldehyde emission at 0.3 ppm maximum.

2.6 PAINT
We use powder coat on all panel system components and baked epoxy enamel for metal storage cabinets, lateral files and metal pedestals.

Refer to our suppliers' data sheets attached for details.

2.7 ADHESIVES
We use hot-melt glue for drawer assembly, edging and raceway assembly.

We use water-based white glue for laminate and wood product assembly, including the panel core.

We use water-based contact glue for fabric on tackboards.

Those glues are non-solvent based with no ozone depleting emissions. See the attached data sheets for details.

Refer to the chart and to our suppliers' data sheets attached for details.

2.8 CFC of HCFC
Uni-T and TakeOff furniture do not contain plastic foam manufactured or formulated using CFC's or HCFC's.

2.9 PLASTIC STAMPED FOR RECYCLING
There is no stamping for recycling on plastic parts yet.

2.10 MATERIAL RECYCLED CONTENT
for Uni-T & TakeOff series

Material	Minimum recycled content requested	Recycle content	Minimum Post-Consumer/industrial Recycled content	Post-Consumer/industrial Recycled content
Steel/Aluminium	25%		10%	
Steel		50%		100%
Aluminium		0%		100%
moulded zamac		0%		N/A
Paper Poducts	20%		10%	
Packaging (corrugated cardboard)		100%		100%
Honeycomb for panel core and doors		100%		100%
Paper (administration)		30%		100%
Wood Products	30%		10%	
MDF		98%		100%
Particle board		61%		100%
Melamine		61%		100%
Korlite (tackboards)		20%		100%
Masonite		0%		50%
Plastic Products	10%		10%	
Moulded HIPS & ABS		50%		0% (almost no waste at all)
Extruded PVC		0%		0%
Acrylic sheet		0%		0%
Polycarbonate sheet		0%		0%
PVC edging 0.6mm		15%		0%
PVC edging 2.5mm		5%		0%

Material	Minimum recycled content requested	Recycle content	Minimum Post-Consumer/industrial Recycled content	Post-Consumer/industrial Recycled content
Fabric	100%		N/a	
Interface fabric group (Guilford)		100%		N/a
Victor		0%		N/a
Styrofoam corner for packaging		10%		0%
Fiberglass ½"		63%		0%
Fiberglass ¼"		0%		0%

Refer to our suppliers' correspondence and or data sheets attached for recycled content.

2.11 SOLID WASTE AUDITING

According to our schedule for the implementation of ISO14001, we are planning to have our first waste auditing in March 2004.

Refer to the following documents for details :

a- Engagement Environnemental (Environmental Commitment)

b- ISO 14001 formulaire d'analyse des aspects significatifs (Significant environmental issues chart for ISO 14001)

c- ISO 14001 Plan d'actions pour les aspects significatifs (Action plan for significant environmental issues of ISO 14001)

2.12 HAZARDOUS AND TOXIC MATERIAL MANAGEMENT SYSTEM

We have a Workplace Hazardous Material Information System in place (WHMIS). We have 9 employees assigned for training all the employees. The implementation is done on a work in progress basis.

Refer to the attached letter from ONYX for recovery and treatment of hazardous and toxic material. Also attached, typical training certificate for WHMIS and an agreement letter with Contenant de l'estrie company for the recycling of wood dust, wood waste and other substrate made from wood fibre.

2.13 PACKAGING
Packaging is design to minimize the amount of material.

We use steel containers between our three plants to carry and to store all the components available for manufacturing. This eliminate the need for packaging.

We use corner protectors and plastic film to minimize packaging or, dedicated box sizes (we do not cut into larger box to make a smaller one and waste ½ of the material) for packaging.

The cardboard contour used for the work surfaces is fitted during packaging and no waste is resulting when applied on the perimeter, every inch is used and recovered.

We also use pallets with a maximum number of components on them in order to minimize the amount we use.

The corrugated cardboard we use for packaging contains 100% recycled paper fibre.

On site of installation, packaging material is very easy to sort in order to be disposed and re-used, recycled and/or recovered.

2.14 TAKE-BACK PROGRAM ONTARIO
To be investigate with existing companies in the business of refurbishing.

2.15 OFF-GASSING
Off-gassing takes place during purchasing, receiving and manufacturing cycle of material which

Generally speaking, the materials are purchased on a monthly basis, allowing the material for off-gassing during that period of time in the raw material warehouse.

Then the manufacturing cycle for components is 24 hours allowing the material for off-gassing again.

When it gets to final assembly, off-gassing of 24 hours minimum is completed on individual components and furniture are packed.

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ENVIRONMENTAL ATTRIBUTES : ARTOPEX

MANUFACTURER'S COMMITMENT

1. Environmental policy : see "environmental policy" attached

2. Waste audit
According to our schedule for the implementation of ISO14001, we are planning to have our first waste auditing in March 2004.

We have a Workplace Hazardous Material Information System in place (WHMIS). We have 9 employees assigned for training all the employees. The implementation is done on a work in progress basis.

3. Plans for environmental improvements
Refer to the attached documents in 2.

RESOURCE INPUT

1. Adhesives
We use hot-melt glue for drawer assembly, edging and raceway assembly.
We use water-based white glue for laminate and wood product assembly, including the panel core. We use water-based contact glue for fabric on tackboards.
Those glues are non-solvent based with no ozone depleting emissions. Data sheets available for details.

2. Paint
We use powder coat on all panel system components and baked epoxy enamel for metal storage cabinets, lateral files and metal pedestals. Data sheets available for details.

3. Metal parts recycled content : see the table 1 below

4. Plastic parts recycle content : see table 1 below

5. Major plastic parts are not stamped yet.

6. For VOC emission testing, we have collect data from our suppliers. Each individual data sheet for raw material, combined to the manufacturing processes we use make us believe that our furniture does not emit VOC's which would result in an indoor air concentration of greater than 0.5 mg/m3.

In order to validate that, we also got a quotation from the National Research Council of Canada (NRC) to perform the tests as per ASTME 6670-01 for VOC emission. Before doing the test we wanted to see which standard would be adopted in Canada (CGSB and/or PWGSC). Bifma is currently working at defining guidelines for the industry. Those requirement are so new, that it took 2 months for the NRC to provide us with a quotation. It seems like the industry is not geared yet for those standards.

7. Formaldehyde : same as No.6

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PRODUCT DESIGN
1.All major components are designed to be disassembled.

2.Wear susceptible parts are designed to be replace by user

MANUFACTURING
1.Waste material from the manufacturing is minimized. We have a system in place to reuse melamine and other particleboards. Same thing with fibreglass and the majority of material being used in production. We do manufacture following a “lean manufacturing” model which we started implementation in year 2000.

2.Waste material recycling : see table 3 below

3. ISO14001 : Artopex manufacturing plant Number 1 is actually compatible to the standard;
Internal and external audit have been performed with success.
Implementation is taking place in plant number 2. Plants number 3,4 & 5 to follow.
see our environmental commitment “engagement environmental” for details.

PACKAGING AND DISTRIBUTION
1. Packaging is design to minimize the amount of material.

We use steel containers between our three plants to carry and to store all the components available for manufacturing. This eliminate the need for packaging.
We use corner protectors and plastic film to minimize packaging or, dedicated box sizes (we do not cut into larger box to make a smaller one and waste ½ of the material) for packaging.

The cardboard contour used for the work surfaces is fitted during packaging and no waste is resulting when applied on the perimeter, every inch is used and recovered. We also use pallets with a maximum number of components on them in order to minimize the amount we use.

2.The corrugated cardboard we use for packaging contains 100% recycled paper fibre.

3.On site of installation, packaging material is very easy to sort in order to be disposed and re-used, recycled and/or recovered. We do not take the packaging material back.

USE AND MAINTENANCE
1.The furniture is accompanied by installation instruction when needed or on demand in order to minimize the amount of paper. Since our installers are supported to install and to do the maintenance and repair, paper and instructions are given on request.

2.Inventory numbers are available through customer service.

DISPOSAL
1.There is no official buy or take back program although it is possible to identify refurbish manufacturer in the industry on request.

2. There is no official plant attached to our operations although it is possible to identify refurbish manufacturer in the industry on request.

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Table 1 – Recycle content of raw material

Raw Material	Component	Recycle Content
Steel/Aluminum		
Steel	Steel : metal pedestals, metal lateral files, system brackets and supports, media panel tiles, panel hardware, top cap, panel connectors, connector covers, panel perforated grill, vertical wire manager for worksurface, data channel for media panel, table leg post, overhead storage shelves, coat hook	50 %
Aluminum	Aluminum : curved panel top cap, transparent panel frame, media panels top and bottom beams, panel door frame, power poles, whiteboards tray, accessory bar, nameplate	0 %
Molded Zamac	Molded zamac (zinc & aluminum alloy) : insert nut in work surface, mounting blocks for connectors.	0 %
Paper (Administration)	Administration , mailing, “paper work”, etc...	30 %
Honeycomb for panel core and doors	Acoustic panels core, panel door core	100 %
Wood products		
MDF	MDF (medium density fiberboard) : drawer box for laminated pedestals	98 %
Particle board	Particle board : core for plastic laminated or H.P.L. components	61 %
Thermally fused laminate (or Melamine)	Melamine : secondary horizontal surfaces, vertical surfaces	61 %
Korlite (Tackboards)	Korlite : Tackboard core	20 %
Masonite	Masonite : acoustic panels core skins, drawer bottom for laminated pedestals	0 %

Plastic products		
Molded HIPS & ABS	HIPS & ABS : work surface grommet, panel finishing caps and covers	50 %
Extruded PVC	PVC : raceway cover, panel connector filler, raceway top and bottom rails, panels contour, transparent panels gasket for glass, pedestal recessed finger pull	0 %
Acrylic sheet	Acrylic : transparent panel glass (bronze and clear)	0 %
Polycarbonate sheet	Polycarbonate : transparent panel glass (fluted)	0 %
PVC edging (0.6mm) PVC edging (2.5mm)	PVC edging on all H.P.L and T.F.L. components	15 % (for 0.6mm) 5 % (for 2.5mm)
Fabric		
Interface fabric group (Guilford) Victor	Acoustical and curved panels, tackboards.	100 % 0 %
Fiberglass ½``** **Fiberglass ¼``	Acoustical panels and curved panels	63 % (1/2'' thick) 0 % (1/4'' thick)

*Based on last 12 months of operation

Table 2 – Recycled content of packaging materials

Component	Material	Is this material recycled and if so what is the percentage?	Can it be recycled after using it?	Is this material presently reycled in Canada?
Packaging (corrugated)	**Cardboard**	Yes = 100 %	Yes	Yes
Corner for packaging	**Styrofoam**	Yes = 10 %	Yes	Yes
Packaging	**Transparent plastic membrane**	No	Yes	Yes

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Table 3 – Detailed recycle content and Post consumer recycled content

Material	Recycle content	Post-Consumer/industrial Recycled content
Steel/Aluminium		
Steel	50%	100%
Aluminium	0%	100%
moulded zamac	0%	N/A
Paper Poducts		
Packaging (corrugated cardboard)	100%	100%
Honeycomb for panel core and doors	100%	100%
Paper (administration)	30%	100%
Wood Products		
MDF	98%	100%
Particle board	61%	100%
Melamine	61%	100%
Korlite (tackboards)	20%	100%
Masonite	0%	50%
Plastic Products		
Moulded HIPS & ABS	50%	0% (almost no waste at all)
Extruded PVC	0%	0%
Acrylic sheet	0%	0%
Polycarbonate sheet	0%	0%
PVC edging 0.6mm	15%	0%
PVC edging 2.5mm	5%	0%
Fabric		
Interface fabric group (Guilford)	100%	N/a
Victor	0%	N/a
Styrofoam corner for packaging	10%	0%
Fiberglass ½”	63%	0%
Fiberglass ¼”	0%	0%