

**ATTACHMENT 3 TO ANNEX A****INTERCONNECTING PANEL SYSTEMS, SUPPORTED AND FREESTANDING SYSTEMS****TESTING REQUIREMENTS****1. TEST REQUIREMENTS**

- 1.1. All interconnecting panels and supported components must meet the acceptance criteria provided in CAN/CGSB-44.229-2008 and all free-standing components must meet CAN/CGSB-44.227-2008.
- 1.2. Mobile and stationary pedestals must be tested in accordance with the applicable sections of ANSI/BIFMA X5.9. Any devices used to maintain the stability of the unit, such as counterweights, must be included.
- 1.3. Flammability: The panels must meet a flame spread rating of no more than 150 and a smoke developed classification of no more than 300 when tested to the applicable requirements of the National Building Code of Canada (NBCC) in accordance with CAN/ULC-S102. The test must be conducted on each different fabric composition and interior construction. If panel construction is changed, new flammability tests are required, at no additional cost.
- 1.4. Reference to the above publications, or test methods herein, is to the latest issue.

**2. TEST REPORTS**

- 2.1 Age of tests: Test reports must be current and valid and not more than five years old throughout the duration of the Standing Offer.

An independent and(/or) a company owned are acceptable testing laboratory, provided that the laboratory has been accredited by a nationally recognized body such as Standards Council of Canada, A2LA (American Association for Laboratory Accreditation) or is listed on the Canadian General Standards Board (CGSB) Laboratory Acceptance Program.

**3. ENVIRONMENTAL REQUIREMENTS**

- 3.1. All systems furniture must be either Greenguard-certified or have calculated indoor air concentrations that are less than or equal to those established in Table EQ15 for furniture systems and seating determined by a procedure based on the U.S. Environmental Protection Agency's Environmental Technology Verification (ETV) Large Chamber Test Protocol for Measuring Emissions of

VOC's and Aldehydes (September 1999), testing protocol conducted in an independent air quality testing laboratory.

**Table EQ 15: Indoor Air Concentrations**

Chemical Contaminant	Emission Limits Systems Furniture	Emission Limits Multiple Office Seating
TVOC	0.5mg/m <sup>3</sup>	0.25mg.m <sup>3</sup>
Formaldehyde	50 parts per billion	25 parts per billion
Total Aldehydes	100 parts per billion	50 parts per billion
4-PC (as an odorant)	0.0065mg/m <sup>3</sup>	0.00325mg/m <sup>3</sup>

- 3.2. When the substrate for work surfaces or any other component is a composite wood product (i.e. particle board, medium density fiberboard, plywood) that contains urea-formaldehyde based resins, the substrates must be fully encapsulated on all sides.
- 3.3. Holes drilled into the composite wood product components at the factory must be supplied with plugs that can be removed when the holes are required for the assembly of the workstation components. Holes do not need to be plugged if the product does not emit formaldehyde resulting in an indoor air concentration of more than 50 µg/m<sup>3</sup>. (This can be achieved by product listing on Ecologo, Greenguard, etc.)
- 3.4. All paints to be water-based, solvent free, and applied as a powder coat.
- 3.5. Adhesives used in the manufacture of interconnecting panel systems and supported components must be free of Hazardous Air Pollutants (HAP's).
- 3.6. Furniture system and components must not contain plastic foam that is manufactured or formulated using CFCs (chlorofluorocarbon) or HCFCs (hydro chlorofluorocarbons).
- 3.7. The furniture system and components must be manufactured at a facility that has an established program for solid waste auditing, has prepared a waste reduction plan and has instituted a means to track progress towards waste reduction and diversion from disposal of materials such as metals, plastics, fabrics, wood, and fiberglass.
- 3.8. Packaging must be minimized to that required to adequately protect the furniture system components from mechanical damage or soiling. No packaging may be left on site or landfilled. It must be disposed by the installer at an off-site location where it can be reused, recycled and/or recovered.

- 3.9. All major rigid plastic parts must be stamped with a composition code for future recycling. Major plastic part refers to a main part of the component and is integral to the design of the component. Items considered major components are pencil trays, and base covers. Items not considered major are the work surface edges and panel end trims.
- 3.10. Any wood products used in any of the required furniture product must be Forest Stewardship Council certified (FSC).
- 3.11. Any sealants or adhesives applied at the construction site must not exceed the following requirements:
  - 3.11.1. Adhesives, Sealants and Sealant Primers:

South Coast Air Quality District (SCAQMD) Rule #1168 requirements in effect on January 1, 2003 and rule amendment dated October 3, 2003
  - 3.11.2. Aerosol Adhesives:

Green Seal Standard GS-36 requirements in effect on October 19, 2000
- 3.12. All freestanding components must meet CAN/CGSB-44.227-2008 (Freestanding /Lighting Office Desk Products and Components).
- 3.13. American National Standards Institute (ANSI) ANSI/BIFMA X 5.5 American National Standard for supported and freestanding components.
- 3.14. The chemical and particle emission of the furniture proposed must meet Section 7.6.1 of ANSI/BIFMA X 7.1-2007 (Standard for Formaldehyde and TVOC Emissions of Low-emitting Office Furniture Systems and Seating).
- 3.15. American Society for Testing and Materials (ASTM)  
ASTM D3359 – Standard Test Method for Measuring Adhesion by Tape Test  
ASTM D3363 – Standard Test Method for Film Hardness by Pencil Test. Scratch Resistance – The finish must meet the requirements ASTM D3363, hardness H.
- 3.16. American National Standards Institute (ANSI) ANSI/BIFMA X 5.9 American National Standard for Office Furnishings-Storage Unit Tests.

#### 4. REPORTING OF TESTS

- 4.1. As a minimum, the test report must include the following information:
- a) A title;
  - b) Name and address of laboratory;
  - c) Unique identification of the report (such as serial number);
  - d) Name and address of the client (where applicable);
  - e) Description and unambiguous identification of the item;
  - f) Characterization and condition of the test item;
  - g) Date of receipt of the test item;
  - h) Date(s) of the performance of test;
  - i) Identification of the test methods used;
  - j) Any additions to, deviations from, or exclusions from the test methods (such as environmental conditions);
  - k) A signature and title, or an equivalent identification of the person(s) accepting date of issue of the report;
  - l) Date of issue of the report;
  - m) Test results, including all relevant test data, diagrams, charts and photographs; and
  - n) A statement that the report must not be reproduced without the written approval of the laboratory.