

## Large Chamber Formaldehyde Testing Policy for Single Furniture Pieces

The International Testing Center (ITC) in Leesburg, Virginia operates three 855 cubic foot (24.21 cubic meters) large scale test chambers used exclusively for air sampling of formaldehyde emissions. This state-of-the-art facility benefits from the ITC's three decades of laboratory expertise in measuring formaldehyde emissions. The laboratory is ANAB (ANSI National Accreditation Board) accredited and was the first California Air Resources Board (CARB) approved (TPC-1). The facility features unique flexible conditioning bays built exclusively for testing larger components such as furniture. The chambers are run according to ASTM (American Society for Testing and Materials) E 1333-14 - Standard test method for *Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber*. This test method and analysis produces highly accurate and precise results in formaldehyde emissions.

### Sample Material Shipping

The furniture test samples will be shipped from the manufacturer or distributor in the same fashion and container that they would be shipped to a customer. This may include packing plastic, cardboard, and crates. All pieces must include:

- Manufacturer name and location
- Country of manufacture
- Individual furniture piece name or suit

### Conditioning

The furniture piece will be unwrapped immediately prior to placing into conditioning. The sample will be conditioned with all cushions, drawers, tops, moving pieces opened or removed. All pieces such as legs and/or feet will be included. If the sample sits flush to the floor, a non-formaldehyde emitting bolster will be used to raise the test specimen off of the floor to optimize airflow to the bottom surface. The piece will be conditioned to ASTM E1333-14 specifications.

### Testing

The furniture piece will be tested according to ASTM E1333-14 procedures. The samples will be located in the center of the test chamber and if the sample sits flush to the floor, a non-formaldehyde emitting bolster will be used to raise the test specimen off of the floor to optimize airflow to the bottom surface. All pieces that were included in the furniture package will be included in the test chamber and all cushions, drawers, tops, moving pieces opened or removed.

## **Reporting**

To the best of ability, the test report will note all materials exposed to testing in the large chamber. A rough cubic volume basis of the sample will be listed (length, width, height) along with the number of drawers, open areas, etc.

## **Testing Specifications and Deviations from ASTM E 1333-14 Test Method**

- The result will be reported as the concentration in air of formaldehyde in the large chamber and not based on a loading rate of the sample.
- The result will be specific for that furniture item. This includes furniture piece, size, finish, covering, materials, etc. If the sample design changes any of these factors, another test may be conducted.
- The maximum sample size for testing is approximately 84" x 34"

For more information, please contact the ITC at [labdir@cpamail.org](mailto:labdir@cpamail.org) or (703) 724-1128 ext. 295.