

### **3. The testing conditions and sampling frequency:**

- (1) The establishment of the environmental condition of the chamber: the size of a. the environmental condition: 0.8m<sup>3</sup>; b. temperature: 25 °C; c. humidity: 50%; d. air exchange rate: 0.5ACH.
- (2) a. The test sample size is 200 mm \* 400 mm \*4 pieces; b. the release test of single face, loading factor: 0.4.
- (3) The sampling time: 48 hr.
- (4) The sampling time and frequency as follows separately:

#### Volatile Organic Compounds (VOCs):

During the 24 hours after the experiment beginning, the sampling frequency is once time every one hour with 50 cc/min, the time of sampling is as an hour each time. After the experiment lasts 24 hours, the sampling time is change to once time every two hours, the time of sampling is as two hours each time.

#### Formaldehyde:

During the 24 hours after the experiment beginning, the sampling frequency is once every two hours with 100 cc/min, the time of sampling is as two hours each time. After the experiment lasts 24 hours, the sampling time is changed to sample once every four hours, the time of sampling is as four hours each time.

### **4. Dealing with the results:**

#### Volatile organic compounds (VOCs):

The quantitative analysis is conducted by GC/MS. The change of the release of the organic matter in building materials is estimated by the quantitative analysis, evaluated the total concentration of the organic matter at the specific time using the measure of area of the organic matter with calibration curve, collecting with the sampling volume.