1m³ FORMALDEHYDE CHAMBER

The Environmental Chamber can simulate different test environments such as temperature, relative humidity, air change and real indoor environment to determine the emission rate of formaldehyde and characteristics of various indoor materials or products.

The emission rate is determined by monitoring pollutants concentrations in the chamber, which is used to evaluate the environmental protection level of the product.

- Determine the effects of environmental variables on emission rate and release characteristics of VOC.
- The grades of materials are determined according to the VOC emission characteristics of the sample materials.
- R & D of sample materials and verification of indoor air pollution characteristics from VOC emission.
- Emission rate of VOC in sample experiences time decay in natural environment.
- Assessment of indoor air quality is predicted based on test data analysis.

Technical Specification

Type	XD-IJQ-F1
Volume of Operating Chamber	Interior Dimension 1±0.02 m3: W910mm×H1050mm×D1050mm
Overall Dimension	W1050mm×H1800mm×D1660mm
Temperature/Humidity	Temperature Range: +20℃ - +35℃ Humidity Range: 40% - 60% RH
Instrument Resolution	Temperature：0.1℃ Humidity：0.1%RH
Temperature Fluctuations	±1℃
Temperature Uniformity	≤2℃
Humidity fluctuation	-2%RH, + 3%RH
Operating Chamber Wind Speed	The wind speed of the geometric centre point in the operating chamber is 0.1-0.5m /s. (The wind speed can be adjusted)
Air Change Rate	0.5 - 2Time/hour (adjustable)
	Purge air flow adjustment range should be above than 0.25 - 2.5m3/h
Flowmeter Accuracy	0～500L/min Digital flowmeter, tolerance 0.5 grade; 0 - 500L/min
	Glass rotor flowmeter, tolerance not less than 2.5 grade; 0.25 - 2.5m3/h
Air Flow Display	Ø Standard Scale display of glass rotor meter (flow range can be adjusted)
	Ø Analog quantity digital micro air flowmeter, online flow display on touch screen (flow range can be adjusted)
Air Impermeability	Ø When over pressure of 1000pa, leakage is less than 10-3 x 1m3/min
	Ø Air flow difference of import and export is less than 1%
	Ø Air pressure monitoring in the chamber, micro pressure sensor of analog quantity, pressure display on the touch screen
Conditioning Period	Takes less than 40 minutes to reach temperature of 23 ° , it takes less than 70 minutes to reach humidity of 50%, and the equipment can run continuously for more than 30 days
Formaldehyde concentration in air from empty chamber	Formaldehyde concentration in air from empty operating chamber：≤0.006mg/m3
Noise	Less than or equal to 55 decibels there is no resonance sound between the chamber' door and the equipment's door

Complies to GB/T 18580, B/T 17657GB18584-2001, GB18587-2001, GB/T 17657-2013, Y/T1981-2011, JG/T 344-2011, ASTMD 60

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