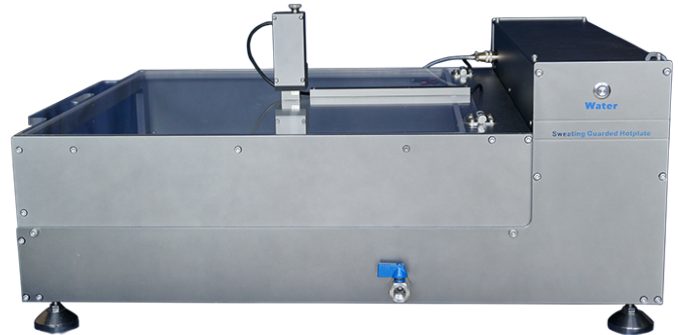


EY50 Sweating Guarded Hotplate

1.1 Product Description

EY50 is the most professional, most advanced Thermal and Evaporative Resistance test instrument, simulate the human skin test plate, Automatic water supply system, Wind speed stabilization system, test unit and Climate Chamber completely separated design, Aluminum alloy shell to ensure that won't rust.



1.2 Technical Specifications

(RCT) Thermal resistance range : $0.002-2.0 \text{ m}^2 \text{ K} / \text{W}$

Repeatability: $\leq \pm 2\%$

Resolution: $0.001 \text{ m}^2 \text{ K} / \text{W}$

(Ret) evaporative Resistance range : $0-1000 \text{ m}^2 \text{ Pa} / \text{W}$

Repeatability: $\leq \pm 2\%$

Resolution: $1 \text{ m}^2 \cdot \text{Pa} / \text{W}$

Test plate temperature range: $30^\circ \text{C} \sim 40^\circ \text{C}$ adjustable

Temperature control accuracy: $\pm 0.03^\circ \text{C}$

Temperature measurement: $\pm 0.01^\circ \text{C}$

Air velocity: $0 \sim 1.2 \text{ m} / \text{s}$ continuously adjustable

Air velocity accuracy: $\pm 1\%$

The sample platform lift range : $0 \sim 50 \text{ mm}$ automatic lift

Sample thickness: $0 \sim 50 \text{ mm}$

Test plate area: $254 \text{ mm} \times 254 \text{ mm}$

Guard ring size: $512 \text{ mm} \times 512 \text{ mm}$

Guard ring width: 127 mm

Sample size: $500 \text{ mm} \times 500 \text{ mm}$

Dimensions: $73 \times 61 \times 350 \text{ cm}$ (L x W x H) (not including Climate Chamber)

Weight: 45 Kg (not including Climate Chamber)

Host power: $\text{AC}220\text{V} \pm 10\%$, 100W or $\text{AC}110\text{V} \pm 10\%$, 100W

Warranty: 24 Months

1.3 Professional Technology

1. The world's first independent design concept, integrated design of control systems and automatic water supply system, users can choose the standard Climate Chamber.
2. Automatic water supply, Automatic drain system, Strong feed water system (In the Evaporative Resistance, water uniformly wets test plate faster)
3. high-precision automatic platform mobile systems, enter the thickness of the test the test platform to move to the corresponding position.
4. According to the thickness of the sample, the machine automatically adjust the PID control parameters, test conditions can quickly reach.
5. The patented Air velocity parallel stabilization system, let the Air velocity homogeneous and stable, so that the test results are more stable.
6. Air velocity continuously adjustable from $0 \sim 1.2 \text{ m} / \text{s}$ to meet any Thermal and Evaporative resistance testing standards.
7. Guard ring width 127 mm , to ensure that heat is passed from the test sample.
8. Wifi communication to PC, to make the connection more convenient.

1.4 Testing standards

GB / T 11048, ISO 11092, ASTM F 1868-09, ASTM D 1518-85, JIS L1096-2010, ASTM F 1868-02, BS8510-2009

1.5 Test Principle

Clothing is often made of materials that impede the flow of heat and moisture from the skin to the environment. Consequently, people may suffer from heat stress or cold stress when wearing clothing in different environmental conditions. Therefore, it is important to quantify the thermal resistance and evaporative resistance of clothing materials and to consider these properties when selecting materials for different clothing applications.

1.6 Application

Measurement of the thermal resistance and the evaporative resistance, under steady-state conditions, of fabrics, films, coatings, foams, and The quilt, including multi-layer assemblies, for use in Clothing production.

1.7 Configuration

Standard configuration: host test unit, a power line, LABTest analysis PC software
Optional accessories: Climate Chamber.

2. Optional accessories(Climate Chamber) Specifications

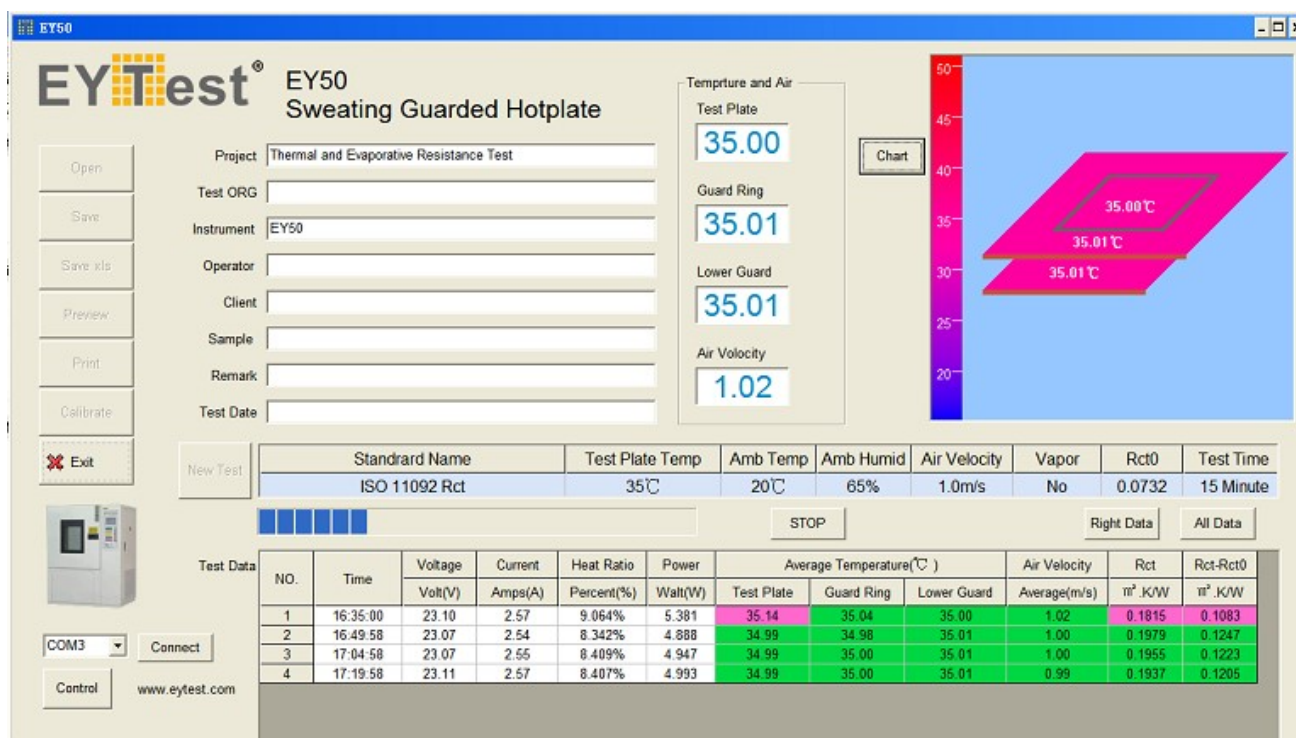
Resolution degree: 0.1 ° C, 1%, P.I.D Control
Temperature range: 0 ° C ~ 100 ° C
Humidity range: 20 ~ 98% R.H.
Temperature accuracy: ± 0.5 ° C
Humidity accuracy: ± 2.5% R.H.
Warming Time: 0 ° C ~ 100 ° C approximately 35 minutes
Cooling Time: 40 ° C ~ 20 ° C about 40 minutes
Inside t box size: 90x70x80cm
Carton size: 170 × 125 × 189cm
Within the box material: SUS # 304 stainless steel mirror
Carton Material: SUS # 304 stainless steel surface the matte lines hairline treatment
Insulation material: rigid foam
Refrigeration systems: single-stage air-cooled Europe and the United States imported Hermetic compressor, environmentally friendly refrigerants
Protection device: compressor overload protection switch, refrigerant pressure protection switch, ceramic fuse the water dish water protection switch, electromagnetic switch and air burning protection switch, sirens
Weight: about 195kg
Power supply: 3 φ , AC380V ± 10% 50/60Hz



3. EY50 PC LABTest Software

3.1 Main Screen

The Main is what the user sees when in during the test, a simple graphical temperature indication window, connection status indication, test results observation window is very convenient.

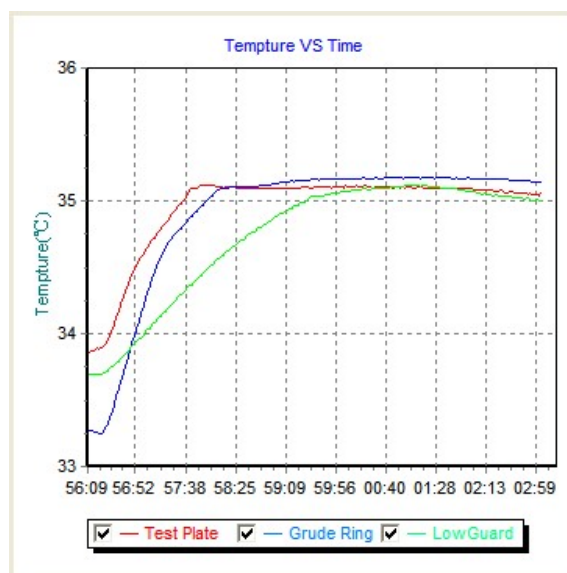
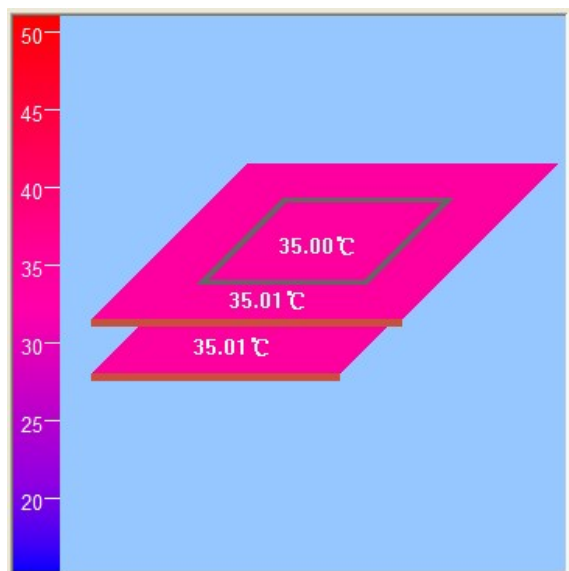


3.2 Test Standards Screen

The Test Standard Screen includes all the thermal Thermal and Evaporative Resistance resistance testing standards, users only need to select the test standard, the software in the background to complete the complex calculations and operations.

3.2 Temperature indication Screen

The temperature indicating that there are two windows, the graphical window may indicate the specific location of the temperature, the color change is associated with temperature. Chart window indicates that the process of temperature vs time.



3.3 Test Report

The test results can be saved as Excel format, concise and practical, to make the perfect test report.

	A	B	C	D	E	F	G	H	I	J	K			
1	EYTest								SWEATING GUARDED HOT-PLATE				Thermal Resistance Test (RCT)	
2														
3	Project		Thermal Resistance Test-Rct0											
4	Test ORG		EYTEST LIMITED Laboratory											
5	Instrument		EY50											
6	Operator		Ediwin											
7	Client		Intertek											
8	Sample		no sample											
9	Remark		Thermal Resistance Test ,Rct0 test											
10	Test Date		2012-12-21											
11														
12	Standard Name				Test Plate Temp		Amb Temp	Amb Humidity	Air Velocity	Vapor	Rct0			
13	GB/T 11048 Rct				35°C		20°C	65%	1.0m/s	No	0			
14														
15	NO.	Time	Voltage	Current	Heat Ratio	Power	Average Temperature(°C)			Air Velocity	Rct			
16			Volt(V)	Amps(A)	Percent(%)	Watt(W)	Test Plate	Guard Ring	Lower Guard	Average(m/s)	(m²·KW)			
17	1	16:12:33	23.02	2.40	15.72%	8.683	35.00	35.00	35.00	0.99	0.1115			
18	2	16:17:33	23.01	2.40	15.72%	8.681	34.99	35.00	35.00	1.00	0.1114			
19	3	16:22:33	23.01	2.40	15.83%	8.744	34.98	35.00	35.00	1.01	0.1105			