WWW.FYICHINA.COM.CN

**FANYUAN INSTRUMENT (HF) CO., LTD.**
**DOWELL SCIENCE & TECHNOLOGY (HK) CO., LTD.**
ADD: TIANYUAN ROAD 9#, HIGH-TECH ZONE, HEFEI CITY, CHINA
POSTAL CODE: 230088
TEL: +86-551-68105003
FAX: +86-551-65232507
EMAIL: SALES@HKDOWELL.COM

# DW259A SWEATING GUARDED HOTPLATE

**FANYUAN INSTRUMENT (HF) CO., LTD.**
**DOWELL SCIENCE & TECHNOLOGY (HK) CO., LTD.**
ADD: TIANYUAN ROAD 9#, HIGH-TECH ZONE, HEFEI CITY, CHINA
POSTAL CODE: 230088
TEL: +86-551-68105003
FAX: +86-551-65232507
EMAIL: SALES@HKDOWELL.COM

**Test Unit**


**Laptop**

**Test unit in the chamber**

**FANYUAN INSTRUMENT (HF) CO., LTD.**
**DOWELL SCIENCE & TECHNOLOGY (HK) CO., LTD.**
ADD: TIANYUAN ROAD 9#, HIGH-TECH ZONE, HEFEI CITY, CHINA
POSTAL CODE: 230088
TEL: +86-551-68105003
FAX: +86-551-65232507
EMAIL: SALES@HKDOWELL.COM

## MODEL NO.:

**DW259A**

## APPLICATION:

**DW259A SWEATING GUARDED HOTPLATE** is used to simulate the heat and mass transferring process occurs on the surface of human skin. It accurately test the thermal and water-vapor resistance of fabrics, films, coatings, foams and leather including multilayer assemblies used in clothing, quilts, sleeping bags, upholstery and similar textile or textile-like products under steady-state conditions.

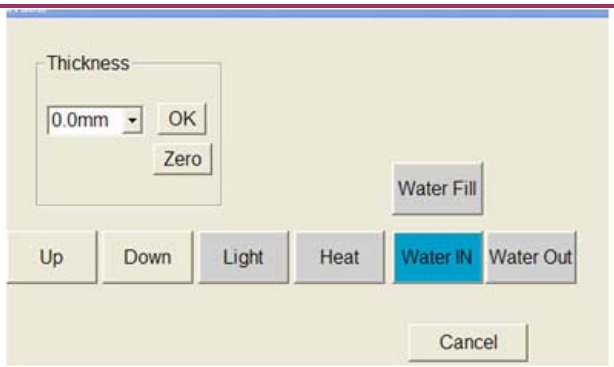
## RELATED STANDARDS:

| STANDARDS | GB/T 11048 | ASTM F1868<br>ASTM D1518 | ISO 11092 |
|---|---|---|---|

Note: this tester can conform to but not limit to the standards above, for more standards conformance, please contact us.

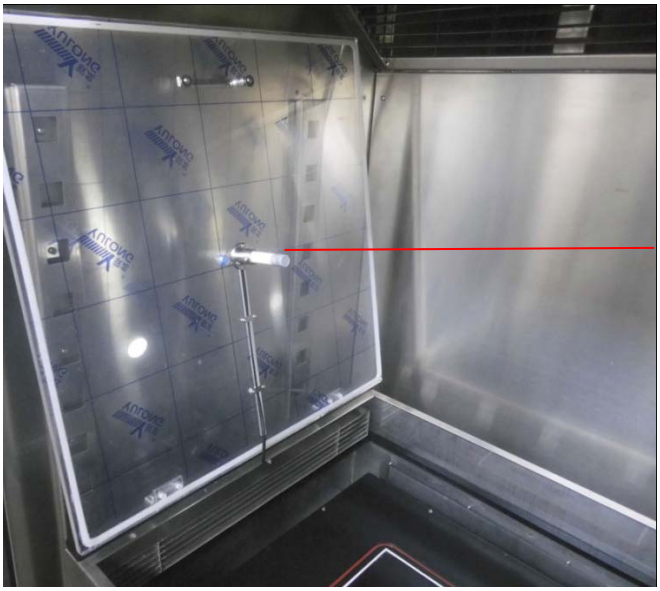
## FEATURE:

- The chamber equipped with heater, compressor, blast fan, and air flue to ensure constant temperature and humidity;
- The chamber adopts extra-fine glass wool to ensure good thermal insulation;
- Inner chamber wall made of stainless steel, flat and splendid;
- Integrated design of control system and water supply system, automatically keep the water supply steady without any water leakage;
- High-accuracy lifting system of test plate, it can move to specific location with high accuracy after choose specimen thickness;



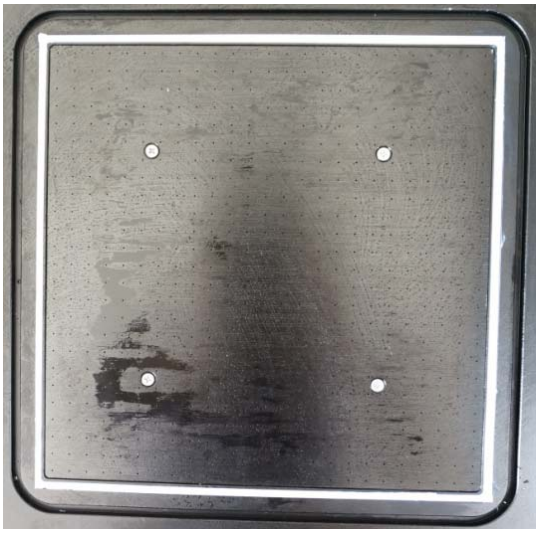

**Control interface**

- Air speed is continuously adjustable to meet more test standards;



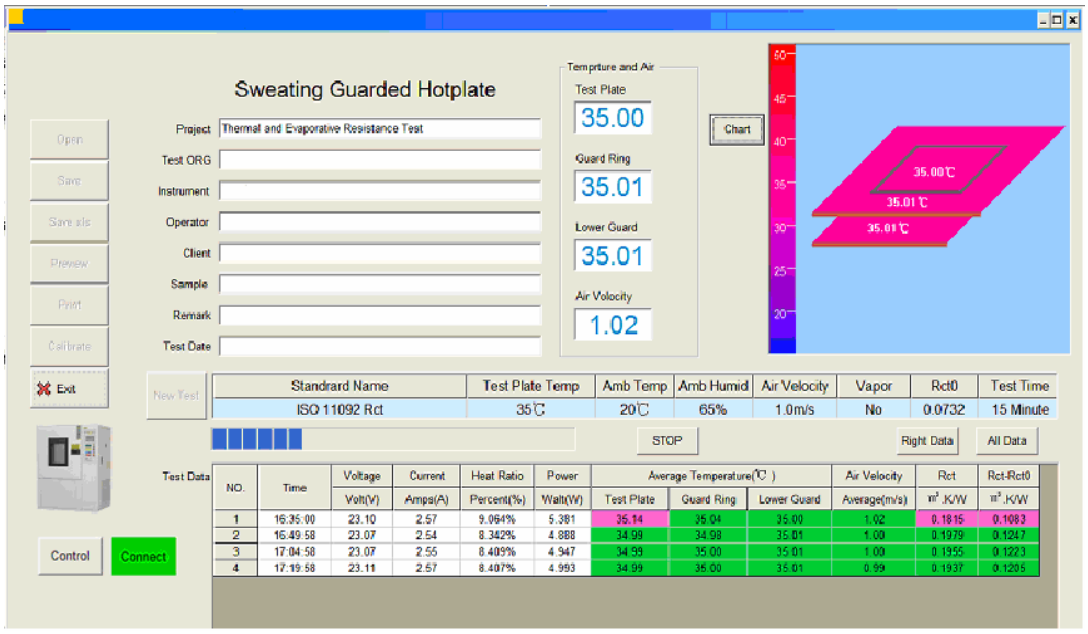
Air speed sensor

- Porous test plate to simulate human skin, easy to clean;



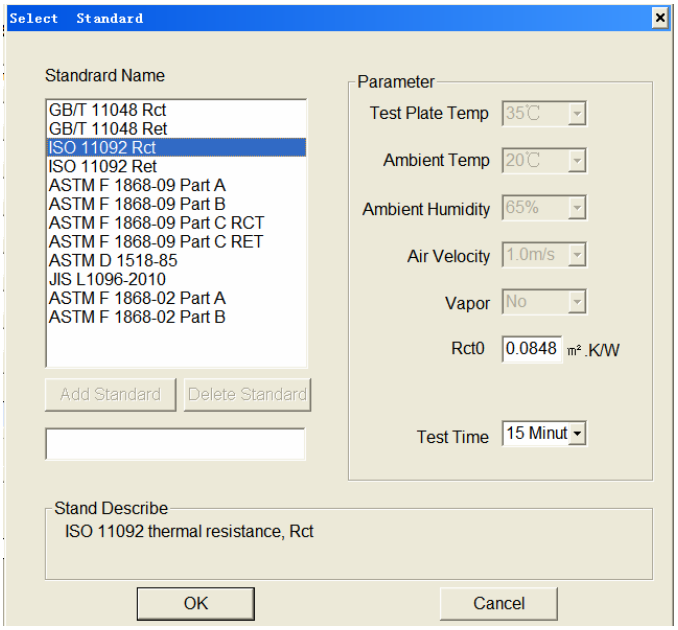
**Test plate**

- LED soft light illuminating system;
- Connection with computer by WIFI, stable data transmission and quick response;
- Stainless steel shell of whole machine ensures long service life;
- User-friendly test software



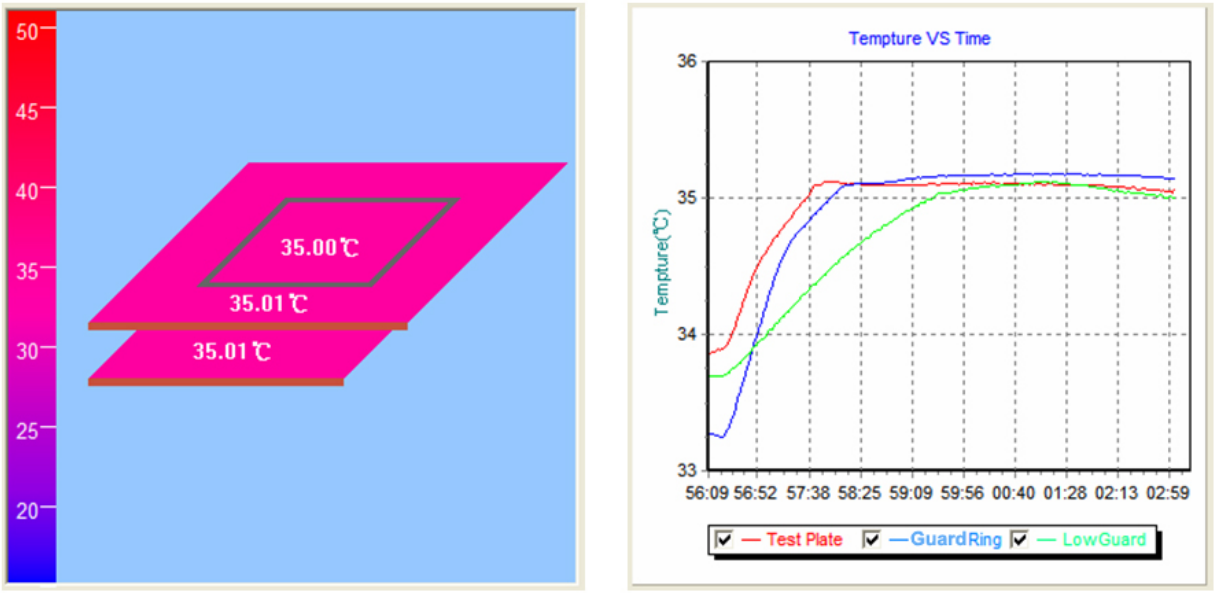

**Main interface**

- It supports various test standards, i.e. common standards & customized standards, very convenient to operate.




**Standard Selection**

- Two modes to display the temperature of test plate, guard ring and lower guard; one is diagram, the other is the temperature-time curve.




**Temperature Display**

- Test data can be saved as Excel format; Simple and practical design makes it convenient to analyze and print the data.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SWEATING GUARDED HOT-PLATE | | | | | | | Thermal Resistance Test (RCT) | | |
| 2 | | | | | | | | | | |
| 3 | Project | Thermal Resistance Test-Rct0 | | | | | | | | |
| 4 | Test ORG | | | | | | | | | |
| 5 | Instrument | | | | | | | | | |
| 6 | Operator | Ediwin | | | | | | | | |
| 7 | Client | Intertek | | | | | | | | |
| 8 | Sample | | | | | | | | | |
| 9 | Remark | Thermal Resistance Test ,Rct0 test | | | | | | | | |
| 10 | Test Date | 2012-12-21 | | | | | | | | |
| 11 | | | | | | | | | | |
| 12 | *Standrard Name* | | | *Test Plate Temp* | *Amb Temp* | *Amb Humidity* | *Air Velocity* | *Vapor* | *Rct0* | |
| 13 | GB/T 11048 Rct | | | 35℃ | 20℃ | 65% | 1.0m/s | No | 0 | |
| 14 | | | | | | | | | | |
| 15 | NO. | Time | Voltage | Current | Heat Ratio | Power | Average Temperature(℃) | | | Air Velocity | Rct |
| 16 | | | Volt(V) | Amps(A) | Percent(%) | Walt(W) | Test Plate | Guard Ring | Lower Guard | Average(m/s) | ($m^2$.K/W) |
| 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 |

**Test Report**

WWW. FYICHINA. COM. CN

**FANYUAN INSTRUMENT (HF) CO., LTD.**
**DOWELL SCIENCE & TECHNOLOGY (HK) CO., LTD.**
ADD: TIANYUAN ROAD 9#, HIGH-TECH ZONE, HEFEI CITY, CHINA
POSTAL CODE: 230088
TEL: +86-551-68105003
FAX: +86-551-65232507
EMAIL: SALES@HKDOWELL.COM

## KEY SPECIFICATION:

| | |
|---|---|
| Test item | Thermal resistance, $R_{ct}$<br>Water-vapor resistance, $R_{et}$ |
| $R_{ct}$ measuring range | 0.000-2.0 $m^2$.K/W |
| $R_{ct}$ resolution | 0.0001 $m^2$.K/W |
| $R_{et}$ measuring range | 2-1000 $m^2$.Pa/W |
| $R_{et}$ resolution | 0.001 $m^2$·Pa/W |
| Test plate temperature | 20-50℃, adjustable |
| Temperature accuracy | ±0.03℃ |
| Temperature resolution | ±0.01℃ |
| Air speed | 0-1.2m/s, adjustable |
| Air speed accuracy | ±1% |
| Test time | 3-30min, adjustable |
| Test plate lifting range | 0-60mm |
| Test plate size | 254mm*254mm |
| Thermal guard ring width | 127mm |
| Specimen size | 500mm*500mm |
| Specimen thickness | 0-60mm |
| Chamber temperature range & accuracy | 20-80℃±0.5℃ |
| Chamber temperature uniformity | ±2℃ |
| Chamber humidity range & accuracy | 30%RH~80%RH±2%RH |
| Inner dimensions of chamber | 1000*1000*1000mm (L*W*H) |
| Power supply of chamber | AC380V, 50Hz, 3 phase |
| Power supply of test unit | AC220V, 50Hz, 1 phase |
| Dimensions | 1800×1370×1660mm |
| Weight | 540kg |

## STANDARD CONFIGURATION:

| No. | Item | Quantity |
|---|---|---|
| **1.** | Chamber | 1 set |

| | | |
|---|---|---|
| **2.** | Test unit | 1 set |
| **3.** | Laptop | 1 set |
| **4.** | Membrane | 1 pack (250pcs) |
| **5.** | Software | 1CD |