

# DW259A SWEATING GUARDED HOTPLATE







**Test Unit** 

Laptop



Test unit in the chamber



**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	ISO 11092
STANDARDS	OD/111040	ASTM D1518	150 11072

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;



0.0m	m • OK Zero	-			
		2		Water Fill	
Up	Down	Light	Heat	Water IN	Water Ou

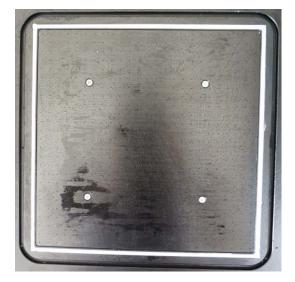
#### **Control interface**

• 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

			Śv	veating	Guarde	ed Hotp	olate		prture and Air — st Plate		50- 45-			
	1	Project	Therma	I and Evaporati	ive Resistanc	e Test		-   3	35.00	Chart		_		
Ope	en -	Test ORG						- 6	and Ring	C	40-			7.
Sm	na –	Instrument						_	35.01		35-	35.0	35.00°C	
San	xis -	Operator						- Lo	wer Guard		30-	35.01 ℃		
Prev	ew.	Client							35.01					
		Sample									25			
Pri	ot	Remark							1.02		20-			
	rate	Test Date							1.02					
💥 Exi		New Yest		Stand	rard Name		Test Pla	te Temp	Amb Temp	Amb Humid	Air Velocity	Vapor	Rct0	Test Tim
		Thew Febr		ISO 1	1092 Rct		35	iC .	20°C	65%	1.0m/s	NIO	0.0732	15 Minut
		1							STO	DP		Ri	ght Data	All Data
-		Test Data	NO.	Time	Voltage	Current	Heat Ratio	Power	Aver	age Temperature	(°C)	Air Velocity	Ret	Ret-Ret0
			nO.	inte	Volt(V)	Amps(A)	Percent(%)	Walt(W)	Test Plate	Guard Ring	Lower Guard	Average(m/s)	111 <sup>2</sup> .K/W	π <sup>2</sup> .K/W
			1	16:35:00	23.10	2.57	9.064%	5.381	35.14	35.04	35.00	1.02	0.1815	0.1083
	1		2	16:49:58	23.07	2.54	8.342%	4.888	34.99	34.98	35.01	1.00	0.1979	0.1247
	trol	Connect	3	17:04:58	23.07	2.55	8.409%	4.947	34.99	35.00	35.01	1.00	0.1955	0.1223
Cont			4	17:19:58	23,11	2.57	8.407%	4.993	34.99	35.00	35.01	0.99	0.1937	0.1205

#### Main interface

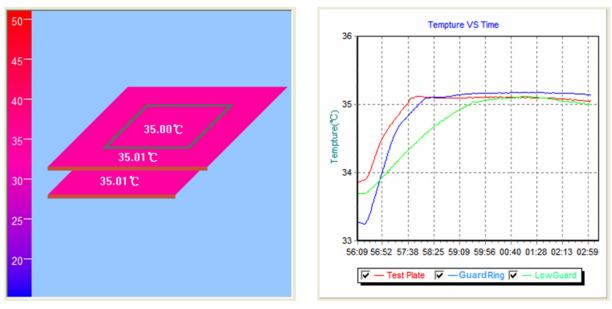
• It supports various test standards, i.e. common standards & customized standards, very convenient to operate.

elect Standard	×
Standrard Name	Parameter
GB/T 11048 Rct GB/T 11048 Ret	Test Plate Temp 35°C
ISO 11092 Rct ISO 11092 Rct	Ambient Temp
ASTM F 1868-09 Part A ASTM F 1868-09 Part B ASTM F 1868-09 Part C RCT	Ambient Humidity 65%
ASTM F 1868-09 Part C RET ASTM D 1518-85	Air Velocity 1.0m/s
JIS L1096-2010 ASTM F 1868-02 Part A ASTM F 1868-02 Part B	Vapor No
	Rct0 0.0848 m².K/W
Add Standard Delete Standard	
	Test Time 15 Minut -
- Stand Describe	
ISO 11092 thermal resistance, Rc	t
ОК	Cancel

**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.

4	A	В	С	D	E	F	G	Н	I	J	K	
1				SWEA	TING GU/		HOT-PI	ATE	Thermal R	esistance T	est (RCT)	
2				OTTEN		merman	colorance r	001 (1101)				
3		Project	ect Thermal Resistance Test-Rct0									
4	Test ORG											
5	Instrument											
6	Operator Ediwin											
7	Client Intertek											
8	Sample											
9	F	Remark	Therm	al Resi	stance Te	st ,Rct0	test					
10	Te	st Date	2012-	12-21								
11												
12		Standra	rd Name	•	Test Plate	e Temp	Amb Temp	Amb Humidity	Air Velocity	Vapor	Rct0	
13		GB/T 11	1048 Rct	:	35"	C	20°C	65%	1.0m/s	No	0	
14												
15	NO.	Time	Voltage	Current	Heat Ratio	Power	Avera	ige Temper	ature(°C)	Air Velocity	Rct	
16	NO. Time		Volt(V)	Amps(A)	Percent(%)	Walt(W)	Test Plate	Guard Ring	Lower Guard	Average(m/s)	(m <sup>2</sup> .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		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** 



<u>N</u>	AT SPECIFICATION:	
•	Test item	Thermal resistance, R <sub>ct</sub>
		Water-vapor resistance, Ret
•	R <sub>ct</sub> measuring range	0.000-2.0 m <sup>2</sup> .K/W
•	R <sub>ct</sub> resolution	0.0001 m <sup>2</sup> .K/W
•	Ret measuring range	2-1000 m <sup>2</sup> .Pa/W
•	R <sub>et</sub> resolution	0.001 m <sup>2</sup> ·Pa/W
•	Test plate temperature	20-50℃, adjustable
•	Temperature accuracy	±0.03°C
•	Temperature resolution	±0.01°C
•	Air speed	0-1.2m/s, adjustable
•	Air speed accuracy	$\pm 1\%$
•	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°C±0.5°C
•	Chamber temperature uniformity	$\pm 2$ °C
•	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



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