

QINSUN

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Double plate thermal conductivity meter F543



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Double plate thermal conductivity meter—— material thermal conductivity test

The tester has integrated water bath thermostats so that all measurement and control are computer controlled. It mainly tests plastic, rubber, glass, fiberboard, benzene board, extruded board, foamed concrete, hollow glass, wood board, various insulation materials and other homogeneous plate-like materials, and can measure the thermal conductivity of granular materials, bulk materials, soft materials, etc. The tester can be widely used in the production enterprises of heat-resistant and thermal insulation materials, related quality inspection departments and units, universities and research institutes.

F543 Double plate thermal conductivity meter

1. The double-plate thermal conductivity tester adopts steady-state measurement, and the correct result can be obtained only when the cold plate, the hot plate and the shield reach a steady state thermal equilibrium. According to the one-dimensional steady-state heat transfer equation, the heat generated by the hot plate heater is transmitted to the cold plate through the test piece, and is transmitted to the outside of the system by the circulating liquid of the cold plate, thus forming a thermal cycle.
2. The instrument consists of two almost-same test pieces and one heating unit clamped by the two pieces. The heating unit consists of a circular or square intermediate heater and two metal panels. The heat flow is transmitted from the heating unit to the cooling units (circular or square, uniform temperature flat plate assembly) via the test pieces on both sides.

Standards compliant

GB/T 10294-2008 "Measurement of steady-state thermal resistance and related properties of thermal insulation materials"

GB/T 3399-1982 "Test method for thermal conductivity of plastics - heat-shielding plate method"

GB/T 10801.1-2002 "Styrofoam for insulation"

GB/T 10801.2-2002 "Extruded polystyrene foam for thermal isolation"

GB/T 3139-2005 "Test method for thermal conductivity of fiber reinforced plastics"

GB/T 17794-2008 "Flexible Foam Rubber Insulation Thermal Products"





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F543 Double plate thermal conductivity meter — Several Major Features



Smart touch screen control panel

The tester has Microcomputer control system and it is more efficient and reliable. The programmable 7-inch color LCD touch screen achieves control, detection, calculation, data display and other functions.



Double station test

The instrument has two stations, which can test at the same time. The use is easy, and the performance is reliable, and at the same time, the work efficiency is improved.



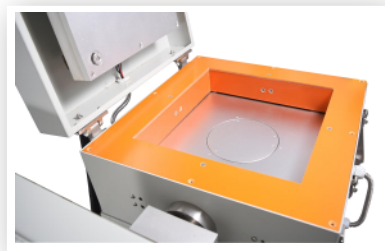
Multi-directional protection design

The instrument has high safety performance. It adopts independent design for circuit and refrigeration cycle, thus ensuring that the data collected by the electrical part is not affected by the waterway and improving the stability.



Reasonable structural design, high flexibility

The chassis is beautiful and elegant. The test box body adopts spraying plastics which has strong mechanical strength, is corrosion resistance and small in size of equipment. The unique caster design increase the flexibility of the thermal conductivity.



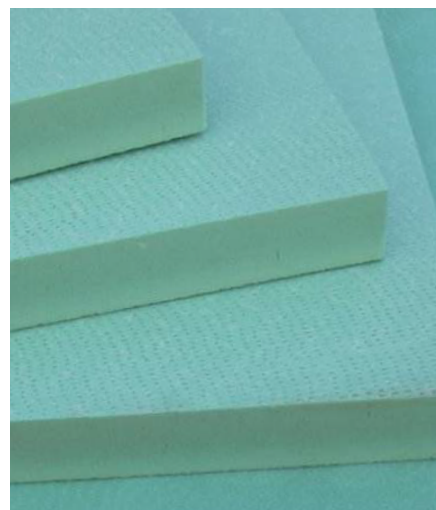
Temperature closed loop monitoring and automatic adjustment

The temperature stability of the instrument is good, and the unique shield design forms a one-dimensional protection effect, so that the temperature is not lost.



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F543 Double plate thermal conductivity meter — Field Application



The tester is widely used for rubber, glass, fiberboard, benzene board, extruded board, foamed concrete, hollow glass, wood board, various insulation materials and other homogeneous plate-like materials. At the same time, it can measure the thermal conductivity of various materials such as granular materials, bulk materials, soft materials, etc.



It is applicable to the performance verification of new products, quality control of the production department, and the of material properties for the third-party testing organization, the product performance verification laboratory, and the quality and technical supervision department, etc.

F543 Double plate thermal conductivity meter—— Configuration parameter

Standard configuration



54301

Depth ruler



54302

Low temperature tank

Technical Parameters

Operating mode: automatic	Sample thickness: standard 25mm, range (5~40) mm
Sample size:300mm×300mm×H(5~40) mm	resistance requirements of test piece: the thermal resistance of the test piece should not be less than 0.1 (m ² •K) / W, and the thickness meets the standard thickness requirements; if the lower limit of thermal resistance of test piece is as low as 0.02 (m ² •K) / W, but the accuracy does not necessarily meet the requirements.
Test piece flatness:0.1mm	
Thermal conductivity measurement range: (0.001~2.000)W/ (m•K)	
Thermal conductivity measurement accuracy:±3%	Clamping force: no more than 2.5kPa
Repeatability of measurement data:±1%	Power supply: 220V±10%, 2.5KW 50Hz
Temperature resolution:0.01°C	Weight: 260kg
Temperature control accuracy:0.05°C	Appearance size: 900mmX900mmX1200mm



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