

# QINSUN

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High temperature limiting  
oxygen index tester

**F248D**

## F248D High temperature limiting oxygen index tester

——Critical concentration value of oxygen required to test a material for flammability

F248D High temperature limiting oxygen index tester, It refers to the volume fraction concentration of oxygen in a mixed gas of oxygen and nitrogen when it can just barely support its combustion, which is the index that characterizes the combustion behavior of the material. As people's requirements for material properties are getting higher and higher, the field of material application is becoming wider and wider, and the test conditions for the difficulty of burning materials are becoming more and more demanding. The high temperature limit oxygen index tester is mainly used to test the difficult degree of burning materials under high temperature conditions, and to control the quality of products by testing the burning performance of materials.

## F248D High temperature limiting oxygen index tester

1.The high temperature limit oxygen index tester is used to determine the limiting oxygen index of solid materials in various working conditions above normal temperature such as textiles, plastics, laminates, foams, film negative and membranes, which can be used for evaluation of combustion performance under specified conditions, so as to guide the research & development of material, provide data basis for product acceptance, and provide data basis for the research & development of new material, product quality acceptance and so on.

2.The test sample is vertically fixed in a test tube that is transparently heated, in which the upward flowing oxygen and nitrogen mixed gas, igniting the top of the sample, observing the combustion characteristics of the test sample, and comparing with the time of sample continuously burning, combustion time, and the given limit value. The minimum oxygen depth value expressed as a percentage content of oxygen at the time of combustion is measured by series of tests at different oxygen concentrations.

## Standards compliant

ISO 4589.3 Plastics - Determination of combustion behavior by oxygen index method - Small sample materials of high temperature test .

NES 715 Plastic - Oxygen index test standard.

-High temperature test can also be used for normal temperature test

GB/T 2406.2 Plastic - Oxygen index test standard.

ISO 4589.2 Plastic - Oxygen index test standard.

GB/T 5454-1997 Textiles - Combustion performance test Oxygen index method.

ASTM D2863 Plastic - Oxygen index test standard.

NES 714 Determination of oxygen index of small sample materials.

GB/T 10707 Rubber combustion performance - Determination of oxygen index method.

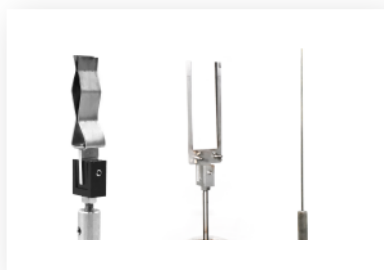


## F248D High temperature limiting oxygen index tester—— Several Major Features



### Imported sensor

The imported high-precision paramagnetic oxygen concentration sensor has the features of high precision and stable performance. The oxygen concentration can be detected in real time, and the oxygen concentration through the gas flow is adjusted in accordance with the precise control of the PLC.



### Flexible fixture design

The fixture is made of refractory stainless steel that is resistant to high temperatures and does not rust, which can hold variety of samples. Sample requirements for different characteristics can be achieved by changing the sample fixture.



### Smart touch operation

It is equipped with a 7-inch color screen, intelligent touch, multiple-point touch operating system, easy to control, multi-language display, Chinese and English switching. The simplified operating interface is easy to operate.



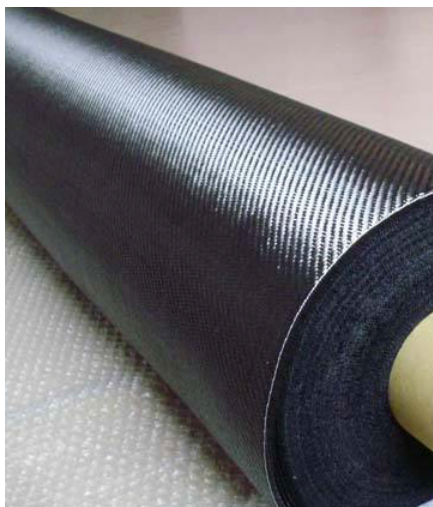
### Quick change structure design

The test cylinder of the tester is made of transparent glass which can withstand high temperature, the test cylinder has heating function, and various high temperature working conditions can be provided for testing. In addition, the test cylinder and the base are combined with a quick change design, and the burning conditions can be clearly observed during the test, and it is easy to clean after the test, in addition, the stainless steel base can avoid the impact of various corrosion on the test data, and has a long service life.



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## F248D High temperature limiting oxygen index tester—— Field Application



F248D High temperature limiting oxygen index tester, It is used to determine the limiting oxygen index under high temperature conditions of rubber, high performance fiber, and composite materials, which can be used to evaluate the combustion performance of materials under high temperature conditions, thus guiding the research and development of materials and providing data basis for product acceptance.



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.



## F248D High temperature limiting oxygen index tester—— Configuration parameter

Standard configuration



248D01

Test cylinder



248D02

Sample fixture  
(plastic products)



248D03

Stainless steel beads (500g / bag)  
with diameter of 3-5mm



248D04

Sample fixture



248D05

Support base



248D06

Pilot burner / sets



248D07

Oxygen concentration sensor

## F248D High temperature limiting oxygen index tester—— Configuration parameter

### Optional Accessories



248D08

Igniter



248D09

Sample fixture (film product)

### Technical Parameters

Panel operation: full color touch screen control	Supply pressure: $\leq 1\text{MPa}$
Language: Chinese and English operation interface	Test air pressure: $0.15\text{--}0.2\text{MPa}$
Test cylinder: heat-resistant high borosilicate, inner diameter of inner cylinder $\geq 75\text{mm}$ ; height $\geq 550\text{mm}$ , inner and outer cylinder gap $5\text{--}10\text{mm}$ .	Test gas flow rate: $12.1\text{L/min}$
	Test temperature range: room temperature $\text{--}200^{\circ}\text{C}$
Stainless steel beads: $\Phi 4\text{mm}$ , height $80\text{--}100\text{mm}$	Response time: $10\text{S}$
The inner diameter of the pilot burner: $2\text{mm}$	Test cylinder heating power: $1000\text{W}$
Pilot burner length: $400\text{mm}$	Power supply: $700\text{mm} \times 430\text{mm} \times 770\text{mm}$
Air inlet: $7\text{mm}$	Weight: $55\text{kg}$
Oxygen concentration control range: $0\text{--}100\%$ , $\pm 0.5\%$	Power supply: $220\text{V } 50\text{Hz}$



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