

CINSUN

Stable Reliable Consistent



High temperature
limiting oxygen index tester
F248A

F248A High temperature limiting oxygen index tester

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

F248A 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.

F248A High temperature limiting oxygen index teste

1.The high temperature limit oxygen index tester is used to test 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 behaviour by oxygen index - high temperature test;

NES 715 small sample material oxygen index determination - high temperature test can also be used at room temperature test; GB/T 2406.2 determination of combustion behavior of plastics by oxygen index method;

ISO 4589.2 plastics - determination of combustion behaviour by oxygen index method;

GB/T 5454-1997 Combustion performance test of textiles - oxygen index method;

ASTM D2863 plastics oxygen index test standard;

NES 714 small sample material determination of oxygen index;

GB/T 10707 rubber - determination of combustion properties - oxygen index method;

GB/T 8924 fiber reinforced plastics -- test method for combustion properties -- oxygen index .



F248A 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 tested 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.



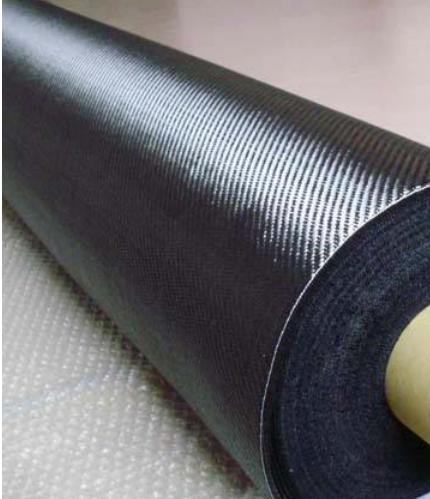
Concentration calibration function

The instrument software has the function of concentration calibration. After long time use, the measurement accuracy of the sensor may drift. The error can be eliminated by recalibration in the software.



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F248A High temperature limiting oxygen index tester—— Field Application



It is used to test 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.



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F248A High temperature limiting oxygen index tester—— Configuration parameter

■ Standard configuration ■■■



248A01

Test cylinder



248A02

Sample fixture
(plastic products)



248A03

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



248A04

Sample fixture

248A05

Support base

248A06

Pilot burner / sets

248A07

Oxygen concentration sensor



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F248A High temperature limiting oxygen index tester—— Configuration parameter

Optional Accessories



248A08

Igniter



248A09

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 5-10mm.	Test gas flow rate: 12.1 L/min Test temperature range: room temperature -200°C
Stainless steel beads: $\Phi 4\text{ mm}$, height 80-100mm	Response time: 10S
The inner diameter of the pilot burner: 2mm	Test cylinder heating power: 1000W
Pilot burner length: 400mm	Power supply: 700mm * 430 mm * 770 mm
Air inlet: 7mm	Weight: 55kg
Oxygen concentration control range: 0~100%, $\pm 0.5\%$	Power supply: 220V 50Hz



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