

Professional

RTD-R2 Gradient Heat Seal Tester is based on the heat sealing method and adopts the specially designed heat sealing jaws, which completely conforms to multiple national and international standards. It is professionally applicable to the determination of heatsealability of plastic films, composite films, coated paper, and other sealing films under certain sealing speed, pressure and 5 different temperatures. The heatsealability of heat sealing materials would be greatly affected by the factors of melting point, thermal stability, fluidity and thickness. The instrument could be used to obtain the best heatsealability parameters accurately and efficiently.



- Digital P.I.D. temperature control technology ensures the preset temperature to be reached rapidly without any fluctuation.
- Wide range control of temperature, pressure and time that meet various test conditions
- Manual or pedal switch, as well as anti-scalded design provides convenient and safe operating environment
- The instrument is controlled by micro-computer with LCD, PVC operation panel, and menu interface, which is convenient for customers
- Professional software supports remote operation for convenient data saving, exporting, and printing

Precision

RTD-R2 Gradient Heat Seal Tester utilizes precision mechanical structure design. The aluminum-encapsulated heat sealing jaws ensure uniform heat spreading along the sealing surface; cylinder-controlled sealing jaws equally apply pressure upon test specimens; rapidly removable heating tube joints provide convenient operation.

- Aluminum-encapsulated sealing jaws provide even and uniform temperature for different sealing surfaces
- Dual underneath type of gas cylinders ensure stable pressure during the test process
- The heating tube joints can be easily installed or removed for rapid replacement

High-end

RTD-R2 Gradient Heat Seal Tester is equipped with 6 independent sealing jaws which could individually control the temperature changes and test 5 groups of specimens at the same time.

- The instrument could test 5 groups of specimens at different temperature simultaneously, and accurately and efficiently obtain heatsealability parameters of the tested specimens
- Independent temperature control of the upper and lower jaws gives multiple combinations of test conditions
- Dual underneath and closed loop-type of gas cylinders ensure even pressure of sealing surface
- Equipped with pedal switch for safe test operation
- Standard RS232 port and micro-printer facilitate to connect with computer and data transfer

Test Principle

RTD-R2 Gradient Heat Seal Tester is composed of upper and lower heat sealing jaws. Before the test, preset the heat seal temperature, pressure and dwell time value, place the specimen in between the upper and lower jaws,

and then press start button. The whole sealing process can be finished automatically.

The test instruments conform to the following standards: ASTM F2029, QB/T 2358 (ZBY 28004), YBB 00122003

Applications

The instrument is professionally applicable to the determination of heatsealability of:

Basic Applications	Films with Smooth Surface	Including plastic films, plastic composite films, paper-plastic composite films, geomembranes, coextruded films, aluminized films, aluminum foil, aluminum foil composite films, and many others. Heat sealing surface should be smooth and width can be designed based on user requirements.
	Films with Decorative Pattern Surface	Including plastic films, plastic composite films, paper-plastic composite films, geomembranes coextruded films, aluminized films, aluminum foil, aluminum foil composite films, and many others. Heat sealing surface can be designed based on user requirements.
	5 Different Temperature Test Stations	The instrument can be used to test five groups of specimens at different stations with distinct temperature.
Extended Applications	Covers of Jelly Cups	The instrument is composed of the upper and lower jaws. The upper one is round-shape where the lower one is designed as a specimen mould whose size exactly fits the jelly cup. Put the jelly cup in the mould of lower jaw, and heat seal can be finished by upper jaw pushing. (Customization required)
	Plastic Flexible Tubes	The ends of plastic flexible tubes are placed in between upper and lower jaws, and then sealed to form a package.

Technical Specifications

Specifications	RTD-R2
Seal Temperature	Room temperature ~ 250°C
Seal Pressure	0.05 MPa ~ 0.7MPa
Dwell Time	0.1~999.9 s
Temperature Accuracy	±0.2°C
Temperature Gradient	≤ 20°C
Gas Supply Pressure	0. 5 MPa ~ 0.7MPa (not in supply scope)
Port Size	Φ6 mm PU Tubing
Seal Area	40mm x 10mm x 5
Instrument Size	526 mm (L) x 430 mm (W) x 450 mm (H)
Power	AC 220 V 50 Hz
Net Weight	51 kg

Configurations

Standard Configurations	Mainbody, Pedal Switch, and Micro-printer
Optional Parts	Professional Software, and Communication Cable
Note	1. The gas supply port of the instrument is $\Phi 6$ mm PU tubing; 2. Customers will need to prepare for gas supply.
