i-THERMOTEK 2400 Heat Seal & Hot Tack Tester

1. Specifications

Hot Tack Test	**Sealing Temperature**	Room Temperature～250℃
	Resolution	±0.1℃
	Accuracy	±1℃
	Dwell Time (Heat Seal)	0.5～99.9s
	Dwell Time (Hot Tack)	0.5～20s
	Sealing Pressure	0.05～0.7MPa
	Number of Sealing Jaws	1＋1[Note2]
	Capacity Range	0～50N (Optional)
	Test Accuracy	1% FS
	Resolution	0.1N
	Specimen Width	15 mm or 25 mm or 25.4 mm
Heat Seal Strength	**Load Range**	0~50N(Optional)
	Test Accuracy	1% FS
	Resolution	0.1N
	Specimen Width	15 mm or 25 mm or 25.4 mm
	Test Speed	200mm/min or 250mm/min or 300mm/min(Customization Available)
	Stroke	78.5mm
Others	**Gas Supply**	Air
	Gas Supply Pressure	0.05～0.7MPa（Outside of supply scope）
	Port Size	Φ6 mm PU Tubing
	Dimension	500 mm (L) ×580 mm (W) ×575 mm (H)
	Power Supply	AC220V 50Hz/AC120V 60Hz[Note3]
	Net Weight	50 kg

Note 1: There are two types of sealing jaws, one is movable, and the other is stationary. There are two sealing jaws in total. All sealing jaws are “heated sealing jaws” which are temperature

controlled independently. The stationary sealing jaw could be chosen as “unheated sealing jaw”.

Note 2: The power supply of instrument has two standards above which are optional.

2. Test Principle

Test Principle

- Hot Tack Test: Clamp the two ends of the specimen in left sample grips and right sample grips (with load cell) respectively or clamp one end of the specimen in right sample grips and paste the other end in the sample clamp for hot tack test. The driving mechanism will pull the left and right sample grips in opposite directions and the load cell can detect the electric signal and then the hot tack strength can be analyzed or calculated.

- Heat Seal Strength: Clamp one end of specimen in right sample grip and the other end in clamping holder. The driving mechanism pulls the right sample grip to move relatively with clamping holder. When applied load on specimen, load cell can detect the electric signal and the heat seal strength can be calculated.

3. Standards

This instrument conforms to multiple standards i.e. ASTM F1921, ASTM F88[Note5], QB/T2358 (ZBY 28004) and YBB 00122003.

Note 3: Instrument complies with “Technique A: Unsupported Method”.

4. Applications

Application	Hot Tack	Hot tack tests of plastic films, sheeting and composite films such as PE, PP, PET or those composite films for instant noodle, washing powder and other food or drugs, etc.
	Heat seal Strength	Heat seal strength tests of plastic films, composite films, paper-plastic films, co-extrusion films, aluminium laminated films, aluminium foils, etc.

5. Instrument Features

Professional

- With the digital P.I.D. temperature control system, the preset temperature can be reached in a short period without fluctuations.
- Wide range of temperature, pressure and dwell time can meet various testing requirements.
- Hot tack test function offer more test conditions.
- The test results can be evaluated with support of professional software.

High-end

- Embedded computer control system provides safer and more reliable data management as well as test operation
- The instrument can be easily operated with a mouse, a keyboard, and a monitor, without requiring a PC.

Intelligent

- Windows-based operating interface, which is easy to learn and operate for the beginner.
- Test data can be stored in various formats, which is convenient for data transfer.
- Historical data can be searched, analyzed and printed conveniently.

6. Configuration

- Standard Configuration: Instrument (Including wireless data interface）, Embedded Software, Standard LCD Monitor, Keyboard, Mouse, Calibration Frame, Pedal Switch, Sample Cutter and Valve tubing Set
- Optional: Strip Sample Cutter, Air Compressor and Desiccant
- Remarks: The gas port should be connected with Φ6mm PU tubing. The gas supply should be prepared by the user.