

## KN-46 Apparatus for Wax Content

### Overview

KN-46 Apparatus for Wax Content conforms to **UOP46 Paraffin Wax Content of Petroleum Oils and Asphalts**. This method is for estimating the paraffin wax content of petroleum oils and asphalts. Wax content is an empirical value dependent upon the conditions under which the wax is separated from the original material. In this method paraffin wax content is defined as the mass-percent of material precipitated when a solution of asphalt-free sample in methylene chloride is cooled to -30 C. The lower limit of detection is 5 mass-percent.

### Features

1. Be able to do 3 tests simultaneously
2. Temperature controller adopts digital temperature controller, which features high precision and fast reaction speed.
3. Imported compressor 750WF22

### Technical parameters

1. Total Power: 1800W
2. Stirring water pump speed: 1400rpm
3. Temperature sensor: Pt100
4. Rated voltage: 220V, 50Hz
5. Cooling medium: F22
6. Cooling speed: 0.8℃/min
7. Cooling depth: -30℃
8. Temperature control accuracy: ±0.5℃



## KN-938 Congealing Point of Petroleum Waxes and Petrolatum

### Overview

KN-938 Congealing Point of Petroleum Waxes and Petrolatum conforms to **ASTM D938 Standard Test Method for Congealing Point of Petroleum Waxes, Including Petrolatum**. Congealing point is a wax property that is of interest to many petroleum wax consumers. The procedure described here measures the temperature at which a sample being cooled develops a “set” or resistance to flow. At that temperature, the wax may be at or close to the solid state, or it may be semisolid and quite unctuous, depending on the composition of the wax or petrolatum being tested. In the case of petrolatums, congealing property is associated with the formation of a gel structure as the sample cools.

A sample of wax is melted and a droplet is made to adhere to the bulb of a thermometer. Using a prewarmed flask as an air jacket, the droplet on the bulb is allowed to cool at a fixed rate until it congeals. The congealing point is observed as the temperature at which the droplet ceases to flow as the thermometer is turned.

### Application scope

1. This test method is suitable for testing the freezing point of paraffin wax, including petrolatum.
2. The inch/pound mentioned in this standard is regarded as a standard unit, and the value in parentheses is for reference only.
3. This standard does not make recommendations for all related safety issues. Therefore, before using this standard, appropriate safety and health protection measures should be established and related systems and scope of application should be worked out.

**Note 1: This method and D127 can choose one of them. The measured result is usually lower than the result obtained in D127-LP133, and the deviation varies with the type of petroleum wax.**

### Features

1. Metal bath heating samples, safe, environmentally friendly, no open flame;
2. The motor drives the sample to rotate in the horizontal axis direction to reduce human error;
3. The rotation speed can be adjusted according to requirements;
4. The blessing device can be operated very conveniently;
5. Microcomputer temperature controller, PID adjustment temperature control, PT100 temperature sensor, high accuracy;
6. Matching special thermometer and test tube plug;

### Technical parameters

1. Applicable standard: ASTM D938
2. Heating method: metal bath heating
3. Temperature control method: digital display PID temperature controller
4. Rotation method: DC motor drive
5. Rotation speed: 2.5s/r
6. Power of the whole machine: 900W
7. Working power supply: AC220V 50Hz



## KN-721 Petroleum Wax Oil Content Analyzer

### Overview

KN-721 Petroleum Wax Oil Content Analyzer conforms to **ASTM D721 Standard Test Method for Oil Content of Petroleum Waxes**. This analyzer covers the determination of oil in petroleum waxes having a congealing point of 30°C (86°F) or higher as determined in accordance with Test Method D 938, and containing not more than 15 % of oil

### Features

1. Separated temperature control system, can guarantee the accuracy of the test temperature
2. Totally enclosed compressor refrigeration, Copper made cooling bath
3. Electronic heating bath, Stirring device on the top, Stainless steel heater
4. Standard glass tube, can meet ISO requirements
5. Evaporation device got transparent observation
6. Four air flow is divided into two road control, to ensure the accuracy of flow rate.
7. Micro-computerized Controller with PID, Digital display temperature (continuous display when testing), accuracy to 0.1°C, Pt100 RTD temperature probe
8. contacted control box is very convenient

### Technical parameters

1. Standard: ASTM D721
2. Temperature control: PID digital temperature controller
3. Cooling method: Compressor
4. Temperature control: heating pipe
5. Working temperature: 0±0.5°C -34.5±0.5°C 90±0.5°C
6. Evaporation device: 4tubes 35±1°C
7. Power: AC220V±10%/50HZ



## KN-127 Petroleum Wax Drop Melting Point Tester

### Overview

KN-127 Petroleum Wax Melting Point Tester conforms to **ASTM D127 Standard Test Method for Drop Melting Point of Petroleum Wax**, Including Petrolatum. Melting point is a wax property that is of interest to most wax consumers. It can be an indication of the performance properties of the wax. Drop melting point, Test Method D127, is often used to measure the melting characteristics of petrolatum and other high viscosity petroleum waxes.

### Features

1. Digital display PID temperature controller, with accuracy of  $\pm 1^\circ$
2. The instrument adopts temperature-resistant high borosilicate glass cylinder, which can observe the sample transparently and has good heat preservation performance.
3. The instrument adopts the compressor refrigeration, which produces a large amount of refrigeration to maintain the temperature constant
4. This instrument is formed by steel plate, and the surface adopts electrostatic spraying process, which is durable and strong in corrosion resistance.

### Technical parameters

1. Applicable standard: ASTM D127 ISO2707
2. Wax bath temperature range:  $4^\circ \pm 0.1^\circ$
3. Transparent bath temperature range:  $16 \sim 150^\circ$  (ambient temperature  $\leq 20^\circ$ )
4. Temperature control mode: Digital display temperature programming
5. Heating mode: SS electric tube heating
6. Cooling mode: Compressor
7. Test stations: 2
8. Heating power: 1500W
9. Cooling power: 500W
10. Total power: 2000W
11. Rated voltage : AC220V  $\pm 10\%$ , 50Hz





## KN-87 Petroleum Wax Melting Point Apparatus (Cooling Curve Method)

### Overview

KN-87 Petroleum Wax Melting Point Apparatus (Cooling Curve Method) conforms to **ASTM D87 Standard Test Method for Melting Point of Petroleum Wax (Cooling Curve)**, it covers the determination of the melting point (cooling curve) of petroleum wax. It is unsuitable for waxes of the petrolatum group, microcrystalline waxes, or blends of such waxes with paraffin wax or scale wax.

### Features

1. An integrated structure of water bath and air bath,
2. Equipped with an electronic timer in addition to the temperature control meter, which is easy to operate.

### Technical parameters

1. Input power: AC 220V $\pm$ 10% 50Hz
2. Heating power: 93°C water bath 1KW
3. Temperature control range: room temperature ~ 100°C
4. Temperature control accuracy:  $\leq \pm 1^\circ\text{C}$
5. Ambient temperature: room temperature around 25°C
6. Relative humidity:  $\leq 85\%$

