



Freezing Point Refrigerator



ASTM D1655
ASTM D2386
ASTM D5901
ASTM D5972
ASTM D7154
IP 16
IP 435
IP 529
ISO 3013

Subject

Freezing Point of aviation fuels, aviation gasoline, aviation turbine fuels, engine coolants, antifreeze products, brake fluids,...

Measuring Freezing Point Principle

According to the methods, the sample is cooled down and stirred.

The solid hydrocarbon crystals formation are observed by the operator. As soon as crystals are detected, the sample is warmed up until their complete disappearance.

Measuring Temperature Probe

- Thermometer

LT/RB-55004/M**Freezing Point Refrigerator**

- Bench top model made in alluminium with epoxid anti-acid paint
- 4 dry clean wells of test
- 4 small stand-by covers
- Working temperatures: +60° ... -80° C
- 1 temperature digital controllers resolution 0,1°
- 1 PT 100 probes class A
- 1 main switches
- CFC free gases
- 4 start/stop button for stirrer

Stirrer

- A micro-motor drives all the mechanical system
- 3 coils stirrer made of brass

Measuring Parameters

- Temperatures: in °C/°F
- Measuring range: +80°C ... -100°C
- Resolution: 0.1 °C
- Accuracy: ± 0.1 °C
- Repeatability / reproducibility as per standards methods or better

Test Jar

- Same dimensions and volume as described by the standard test methods
- Product level mark at 25 ml
- Small edge on the top in order to fix the glass cell to the analytical head

Cooling System

- Insulated cooling jackets.
- Integrated gas CFC free motor compressors: double stage, for temperatures up to -85°C / 2.
- Equipped with an automatic energy power save system. After 15 minutes from the end of the analysis the cooling system goes in stand-by mode.

Safety Devices

- Pressure controller for 1st stage motor compressor
- Pressure controller for 2nd stage motor compressor
- Thermostat for 2nd stage activation
- Thermo-switch for each cooling / heating jacket
- Motor compressors equipped with internal overload devices

Electrical Supply

- 220V ± 15% / 50 to 60 Hz
- 115V ± 15% / 60 Hz

Cord Cable:

3 conductors flexible cable 2 m (7 feet) length with PVC sheath oil and heat resistant.

Ambient Temperature

- Max 32 °C
- H.R. 80%

Dimensions

- width 100 cm
- depth 60 cm
- height 80 cm

Weight

- 110 kg

Spare Parts

- LAB-400/005-03: heater + auto adhesive+ insulation
- LAB-400/005-04: thermo switch
- LAB-400/005-06: PT100 bath
- LAB-400/007-02: static relay
- LAB-400/006-01: cooling fluid valve + fitting
- LAB-400/008-05: stirrer
- LAB-400/008-06: motor for stirrer
- LAB-410/008-12: removable glass cell Freezing Point
- LAB-410/008-041: o-ring for Freezing Point test jar
- LAB-410-556-M: freezing point module