



## OilLab 500 Ring and Ball



ASTM D36  
ASTM E28  
EN 1427  
IP 58  
ISO 4625  
DIN 52011  
NF T 66-008  
AASHTO T53  
JIS K2207

### Subject

Softening point of bitumen, bituminous binders, hot coatings, tar, tall oil rosins, waxes, polymeric resins.

### Measuring Ring-and-Ball Principle

The sample is heated in a liquid bath respecting the heating rate prescribed by the standards test methods. During this procedure the product gradually become softer and when the test ball fall a distance of 25 mm the softening point is determined.

### Measuring Ring-and-Ball Devices

- Testing unit equipped with 2 steel balls  $\varnothing$  9.5 mm 3.5 gr
- Mechanical ring holder and assembly, made of brass, support for 2 test rings, centering guide
- Heating plate
- Heat resistant glass Beaker, 800 ml capacity
- Automatic falling ball detection system by video camera

### Measuring Temperature Probe

- Platinum resistance PT100 class A

### Measuring Parameters

- Temperatures: in °C
- Measuring range: 0°C ... +250°C
- Resolution: 0.06 °C
- Accuracy:  $\pm$  0.1 °C
- Repeatability / Reproducibility: as per standards methods or better

### Integrated Touch Screen Panel PC

- TFT/LCD 8"
- Resolution 1024 x 768, 16.2 M colours
- 2 USB ports for connection to an external printer and/or external PC
- Storage capacity for more than 60'000 analysis

### Software Features

- All analytical parameters recorded
- Customizable analysis parameters and methods
- Customizable results report
- Printable graphs and results
- Self-identification of the typology of the analysers connected

The software includes:

#### Analysis Menu

- Standard method as per ASTM / IP / ISO / EN / DIN... norms of reference
- Unknow sample
- Audible alarm and displayed messages at the end of the analysis and in case of errors and/or malfunctions

#### Diagnostic Menu

- Direct access to all analog, digital, inputs and outputs
- Selectable value displaying: °C / Volt

#### Calibration Menu

- Automatic calibration of each temperature probe
- Last calibration date referred to each single probe displayed and relative data printable
- Display of calibration diagram
- Insertion of offset values
- Standard and advanced calibration modes

#### Data Utilities

- Fields for operator and product name
- Archive viewer for files recall
- All analysis stored in Excel® compatible format
- LIMS compatible

### Heating

- Electrical heater
- Equipped with over temperature cut-out

### Cooling System

- Air forced ventilation fan

### Electrical Supply

- 220V  $\pm$  15% / 50 to 60 Hz
- 115V  $\pm$  15% / 60 Hz

### Cord cable

3 conductors flexible cable 2 m (7 feet) length with PVC sheath oil and heat resistant as per CENELEC directives

### Ambient Temperature

- Max 35°C
- H.R. 80%

### Dimensions (cm)

- Width 48, depth 30, height 52

### Weight

- 25 kg

### Accessories

- LAB-500/005-06: PT100 bath
- LAB-500/005-26: PT100 bath
- LAB-500/008-05: protective shields
- LAB-500/008-18: forceps
- LAB-500/171-01: steels balls, pack of 50 pcs.

### Spare Parts

- LAB-500/005-13: heater
- LAB-500/005-26: PT100 bath
- LAB-500/009-05: Pyrex jar
- LAB-500/171-06: ring ASTM, pack of 2 pcs.
- LAB-500/171-07: collar ASTM, pack of 2 pcs.
- LAB-500/011-02: magnetic stirring bars

### Tools Required for Routine Calibration

- OilLab 80: calibration decade box PT100 simulator
- OilLab 81: set of connectors and cables for cold range