



## Viscoball

The Viscoball measures accurately the viscosity of transparent Newtonian liquids and gases (with a special glass ball).

### 2 YEARS WARRANTY

### Standard Delivery

Set of 6 balls / Control thermometer (-1° a 26°) / Cleaning tools / Calibration sheet / User manual

### Extra Accessories

Circulating temperature bath / Viscosity standard fluids for calibration / Special temperature probes

Changeable angle



Fixed angle



**NEW** ◀  
**CHANGEABLE ANGLE**

**FIXED ANGLE** ◀  
Complies with  
DIN 53015 / ISO 12058

**KIT OF 6 BALLS** ◀  
Wide viscosity range covered

**FAST AND HANDY TUBE** ◀

▶ **SIMPLE THERMOSTATIC**  
Measuring with easy connection to our thermovisc series.

▶ **VISCOSITY READINGS**  
Dynamic (cP or mPa·s)  
Kinematic (cSt)

▶ **REPRODUCIBILITY: 0.5%**  
**COMPARABILITY: 1%**

▶ **VISCOSITY RANGE**  
0.5 - 10<sup>5</sup> mPa·s (cP)  
(Fixed Angle Unit)



## Main Features

- > High accuracy through improved visibility of falling ball.
- > Minimized test time due to accurate return run of the ball.
- > Reduced cost of ownership through increased life time of falling tube.
- > Extended re-calibration periods through improved bearing support.

The VISCO BALL viscometer is mainly used for low viscosity substances such as used in:

- > Mineral oil industry (oils, liquid hydrocarbons, ...).
- > Food industry (sugar solution, honey, beer, milk, gelatine, fruit juice, ...).
- > Chemical industry (polymer solutions, solvents, resin solutions, latex dispersions, adhesive solutions, ...).
- > Cosmetic/Pharmaceutical industry (raw materials, glycerine, emulsions, suspensions, solutions, extracts, ...).
- > Petroleum industry (light crude, machine oil, crude petroleum, ...).
- > Fuels (petrol, diesel oil, paraffin, ...).
- > Paper industry (emulsions, pigment dispersion, paper additives, ...).
- > Paints and varnishes (printing inks, varnishes, water lacquers, inks, ...).
- > Detergents (liquid washing agents, washing-up liquids, tenside solutions, ...).

## Measuring principle

The rolling and sliding movements of a ball through the sample liquid are timed in an inclined cylindrical measuring tube. The sample viscosity is correlated to the time a ball requires to traverse a definite distance. By turning the measuring tube upside down again the return of the ball may also be used for an additional measurement applying the return constant. The test results are given as dynamic viscosity in the internationally standardized, absolute units of mPa·s.

## Technical data

- > Viscosity range 0.5-105 mPas·s (cP)
- > Temperature range -20°C up to +120°C
- > Reproducibility Better than 0.5%
- > Comparability Better than 1%

## > Materials

- Balls 1,2 and G, Borosilicate glass
- Balls 3 and 4, Nickel iron alloy
- Balls 5 and 6, stainless steel

The instrument is supplied with 6 balls, control thermometer (-1 to +26°C) cleaning tools, calibration sheet and instruction manual.

## > On request:

- Glass thermometer for different temperature ranges
  - V91002 Glass thermometer +24 to +51 °C, div. 0.1 °C
  - V91003 Glass thermometer +49 to +76 °C, div. 0.1 °C
  - V91004 Glass thermometer +74 to +101 °C, div. 0.1 °C
  - V91005 Glass thermometer +99 to +126 °C, div. 0.1 °C
- V91107 Ball G for gas measurements
- Standard oils of different viscosities are available for calibration.

Complies with DIN 53015 / ISO 12058

## Measuring Range

Ball	n° Viscosity range (mPa·s)
1	0.6 to 10
2	7 to 130
3	30 to 700
4	200 to 4,800
5	1,500 to 45,000
6	> 7,500



Kit of 6 balls supplied in the case.



Glass Thermometer detail included in the standard delivery.



Cleaning tool detail is also added in the standard delivery.



Pincers to grab up the balls after the set is used.