Rheology Solutions

*Rheology Solutions is the sole Australian distributor of this product range and we welcome the opportunity of discussing your application requirements.*

*We hope the information you are seeking is contained within this file. If you have any questions, or require further information please contact us. We look forward to being of further service.*

*Regards from the Team at Rheology Solutions.*

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## Application

The Thermo Scientific HAAKE Falling Ball Viscometer type C provides a very accurate way of measuring the viscosity of transparent Newtonian liquids and gases. It meets the requirements of the German DIN 53015 as well as ISO 12058 standard and it is accepted as an official reference instrument. Its measuring accuracy when suported with the precise temperature control of a circulator is among the highest available in any type of viscometer.

- Chemical industry
  (polymer solutions, solvents, inks)
- Pharmaceutical industry
  (raw materials, glycerine)
- Food industry
  (gelatin, sugar solutions)
- Mineral oil industry
  (oils, liquid hydrocarbons)

## Measuring principle

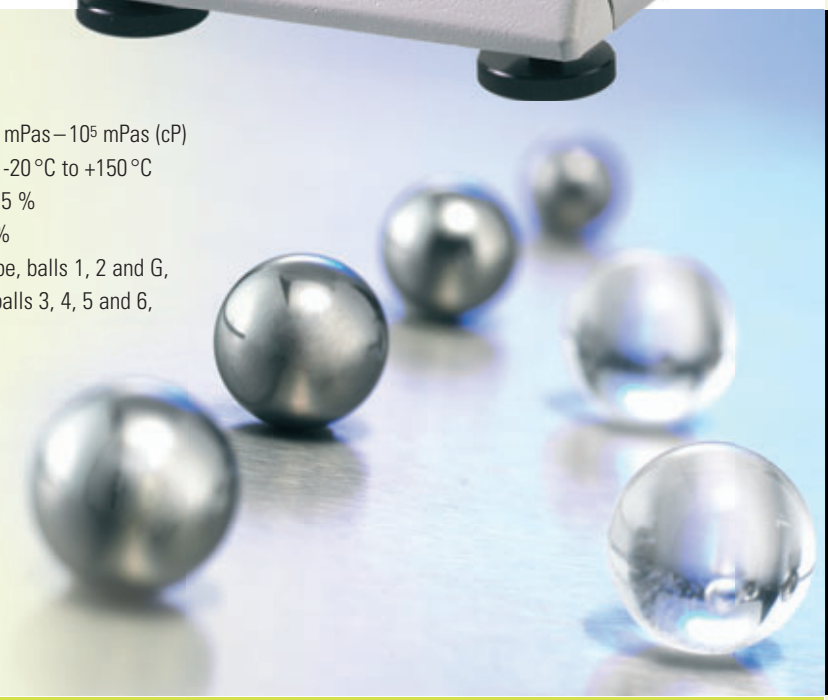
The time for rolling and sliding movements of a ball through the sample liquid in an inclined cylindrical measuring tube is measured. The sample viscosity is correlated with the time needed by a ball to traverse a definite distance.

By turning the measuring tube upside down again the return of the ball may also be used for an additional measurement. The test results are given as dynamic viscosity in the internationally standardized, absolute units of milli Pascal seconds (mPas).

| Viscosity η 20°C (mPas) | | Ball(s) |
|---|---|---|
| $10^4$ | Honey | 5 6 |
| $10^3$ | Glycerine | 5 4 |
| $10^2$ | Lubricating oil | 3 4 |
| $10^1$ | Olive oil | 3 2 |
| | Spindle oil | 3 2 |
| $10^0$ | Water | 1 2 |
| $10^{-1}$ | Ether | 1 G |
| $10^{-2}$ | Neon | G |

## Technical data

- Viscosity range: 0.5 mPas – $10^5$ mPas (cP)
- Temperature range: -20 °C to +150 °C
- Reproducibility: < 0.5 %
- Comparability: < 1 %
- Material: Falling tube, balls 1, 2 and G, borosilicate glass; balls 3, 4, 5 and 6, Nickel iron alloy



## Order information

| Order No. | Description |
|---|---|
| 356-0001 | Falling Ball Viscometer type C including 6 balls, instrument case, thermometer -1 °C up to 26 °C (0.1 °C divisons), cleaning tools, calibration sheet, instruction manual |
| 800-0176 | Stopwatch, LCD-Display up to 9 h, 59 minutes, 59.99 seconds |
| 800-0009 | Ball G for gas measurements |
| 333-0639 | Pt 100 temperature sensor for falling ball - DC50 circulator |