

## SH1117 Gel Strength Tester 414N



### Features

- Electronic constant speed control over the full range
- Paddle spindle simple to install with quick release chuck, easy to clean
- Safety height sensor preventing the rotor from rotating above the can
- Sturdy construction for use either in lab or production line
- Standard package: Viscometer, paddle spindle, 250 ml / Ø85 mm can.
- 220-240V - 50 Hz

### Application

Based on the Rotothinner design, the instrument is especially suited to assess the yield strength and consistency of thick paints, and other materials such as gels, pastes and putties etc.

The sample is contained in a 250ml steel container, this is located centrally and secured on the table's integrated magnets.

### Principle of operation

The instrument is fitted with a paddle (4cm wide x 2cm high, 8 cm<sup>2</sup>) that rotates at a fixed rotational speed of 2rpm whilst it is immersed in the can containing the sample, the can is fixed to a calibrated (0-450 gm/cm) torque table. The value of resistance of the sample is indicated by the alignment of the pointer to the scale reading around the table edge.

### Reading the indicated values

#### Peak value

The highest value indicated is the peak torque resistance of the sample product, this is usually accepted as the point of product shear.(yield strength).

To characterise the product sample, it is recommend a timer (not supplied with the instrument) be used to measure the timeframe from start of paddle rotation to point of peak value, this can be used for subsequent sample comparisons.

#### Fall-back value

After the product has been sheared (attained highest value) commonly the table falls back to a lower value(post shear) and stabilises, it is also useful to measure the timeframe as an additional measure for characterisation and subsequent sample comparisons.

### Standard Supply

SH1117 Gel Strength Tester 414N  
Standard Paddle (4 x 2 cm) (  
Sample container (250ml)  
Product Manual

#### Optional

Calibration Certificate. (Subject to cost)

### Accessories

#### Other paddles formats.

For lower viscosity products use larger area paddles, for higher viscosity products use paddles with lower surface area.

Product Reference (old sheen nr)	Description	Paddle area cm <sup>2</sup>
SH414N/220/D2	Paddle Gel Strength Tester 3 x 1 cm paddle (wide x high)	3
SH414N/220/D3	Paddle Gel Strength Tester 2 x 1 cm paddle	2
SH414N/220/D4	Paddle Gel Strength Tester 5.5 x 5 cm paddle (Fitted with 4 blades)	55
SH414N/220/D5	Paddle Gel Strength Tester 2 x 2 cm paddle	4
SH414N/220/D6	Paddle Gel Strength Tester 4 x 4 cm paddle	16
SH414N/220/D7	Paddle Gel Strength Tester 2 x 0.5 cm paddle	1
SH414N/220/D8	Paddle Gel Strength Tester 4 x 0.3 cm paddle	1.2

#### Consumables

SH409/081/D Tin 250ml