

Rotational Viscometer

H.A.W

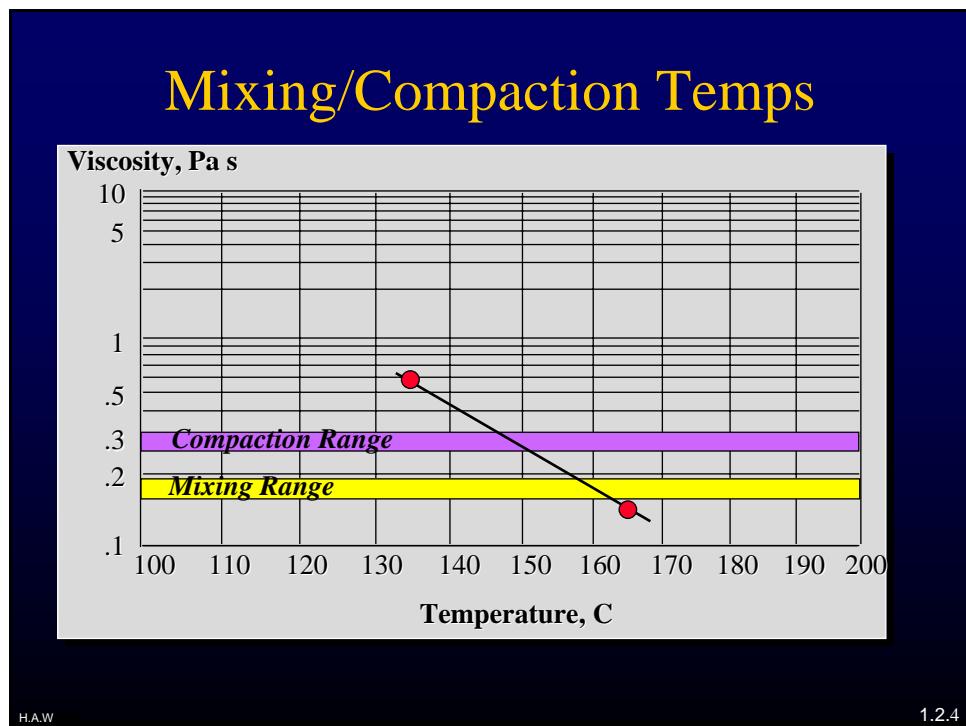
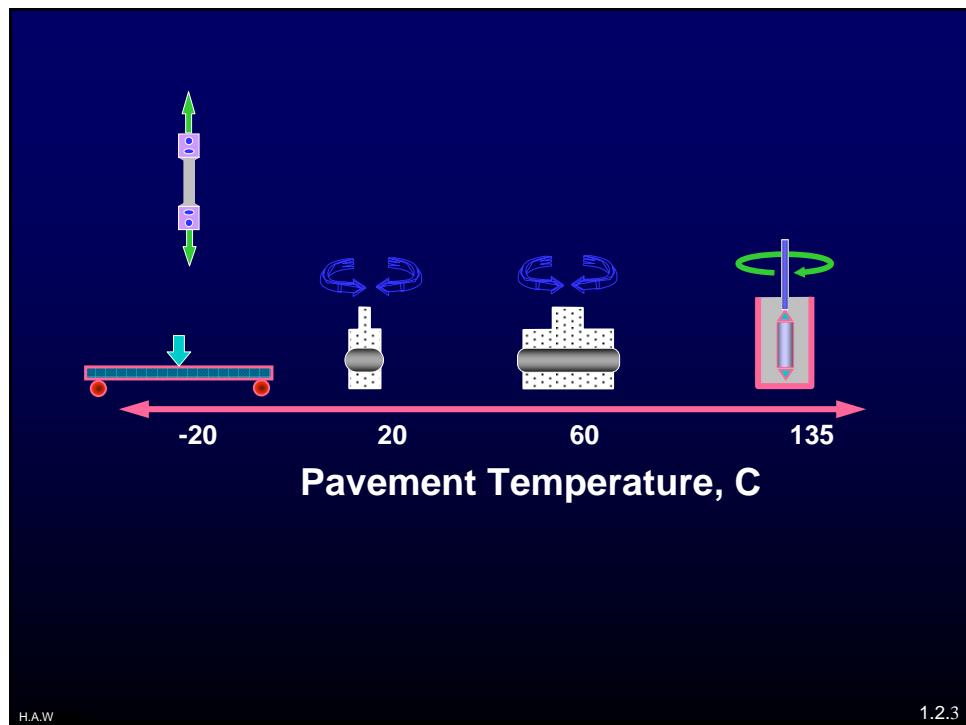
1.2.1

Rotational Viscometer

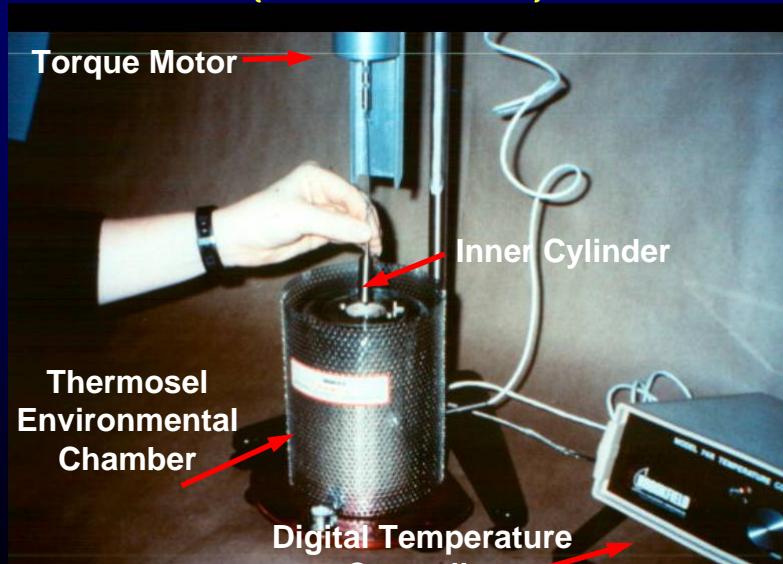
- Purpose
 - handling and pumping
 - temp/viscosity profile
- Output
 - viscosity at 135 C

H.A.W

1.2.2



Rotational Viscometer (Brookfield)



1.2.5

Applied torque
From motor

Spindle

Asphalt
sample

Sample Chamber

H.A.W

1.2.6

Specimen Preparation

- Heat Sample
- Pour into Sample Chamber
- Place in Thermo-Container
 - set temperature to 135 C

H.A.W

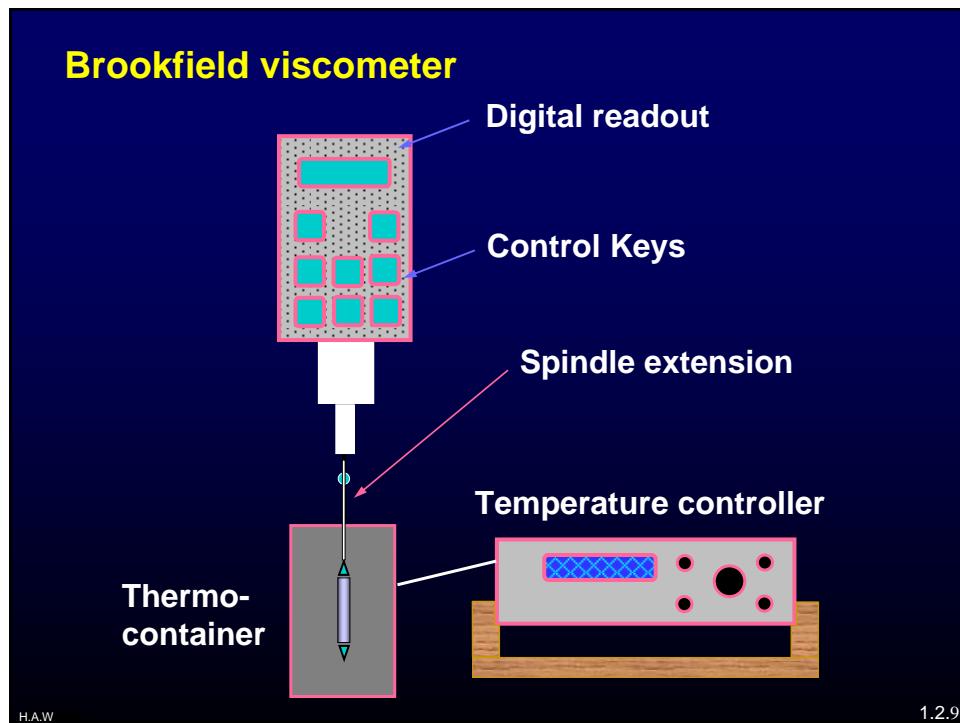
1.2.7

Test Equipment

- Rotational Viscometer
 - motor
 - controls (keypad or computer)
 - display
 - spindle
- Temperature Control System (ThermoseiTM)
 - temperature controller
 - thermo-container
 - sample chamber

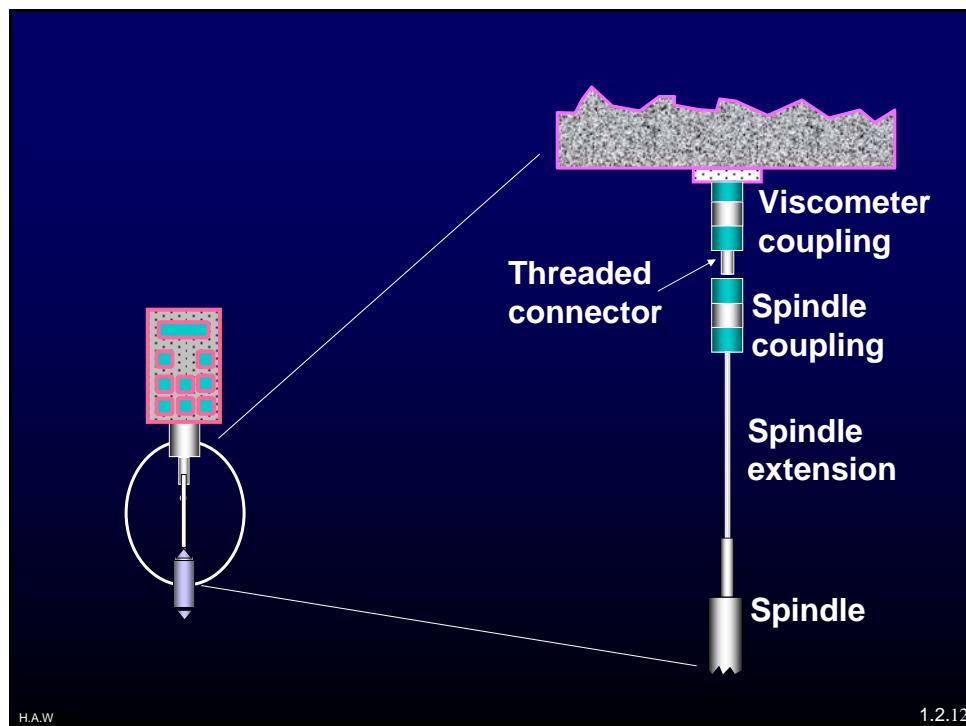
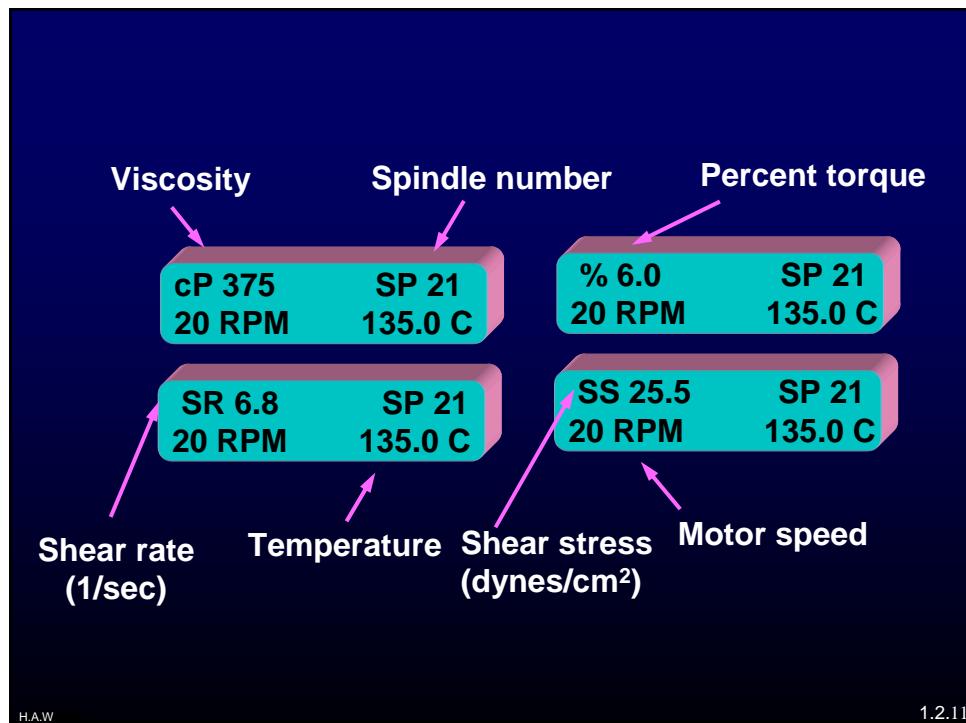
H.A.W

1.2.8



Overview of Procedure

- Sample Chamber into Thermo-Container
- Fasten Spindle
- Set Display
- Actuate Motor
 - speed = 20 rpm
- Equilibrate Temperature
 - viscosity stabilizes



Data Analysis and Presentation

- **Report**
 - viscosity at 135 C
 - average of three readings
 - spindle number
 - rotational speed

H.A.W

1.2.13

Calibration and Standardization

- **Rotary Transducer**
 - reference fluid
- **Output**
 - calibrated thermometer

H.A.W

1.2.14