



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.

RHEOLOGY SOLUTIONS PTY LTD. ACN 082 479 632

HEAD OFFICE: 15-19 Hillside Street, Bacchus Marsh, Victoria 3340 Australia. PO Box 754, Bacchus Marsh, Victoria 3340 Australia.

Telephone: +61 3 5367 7477 **Facsimile:** +61 3 5367 6477 **Email:** info@rheologysolutions.com **Website:** www.rheologysolutions.com

MARS CD-Mode

The HAAKE MARS is equipped with a self-learning deformation control loop based on neural network technology for controlled deformation (CD) oscillation measurements.

In CD-Mode the deformation sine wave is continuously controlled, this enables the control loop to react almost instantaneously to changes in the material.

A quick reaction to material changes is required when the mechanical properties of a material are measured, during a curing reaction, using constant strain oscillation, like in the example below.



Key-words

- Curing measurement
- CD-Mode
- Quick changes
- Control loop
- HAAKE MARS
- Performance

Instrument

- HAAKE MARS
- UTC Peltier
- PP20, gap = 1 mm

Sample

- Two component dental material

Reported by:

Jint Nijman

Thermo Fisher Scientific
Dieselstr. 4
76227 Karlsruhe
Tel: +49 (0) 721 4094 444
info.mc.de@thermofisher.com

www.thermo.com/mc

Reproducibility of the measurement data

The graph below shows the results of two separate but identical oscillation measurements of a fast curing two component dental material that is used for temporary tooth repair. The MARS oscillation CD-Mode control loop has no problems keeping the strain at the set 0.005 while the G' of the material changes by 3 orders of magnitude within 50 seconds.

