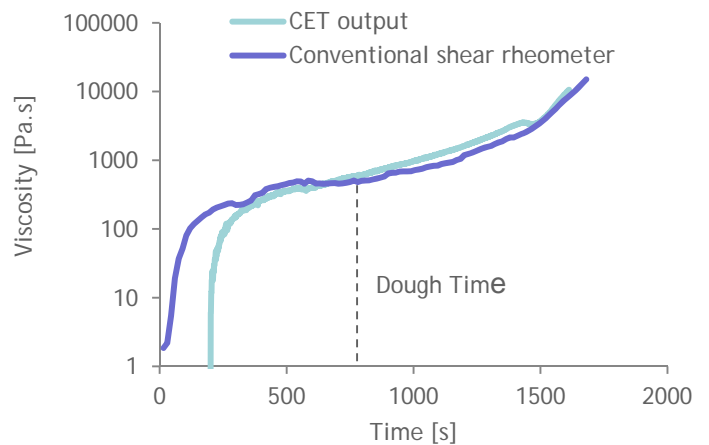


Routine Determination of Curing and Gelation Time

Summary

Determining “dough time” for bone cement is critical for the surgeon operatively, and providing that data on a routine quality control basis is currently complex and expensive. Traditionally, shear rheometers have been used to obtain quantitative information about cement curing, but these are complex to operate and expensive to maintain. There is therefore a need for a simple, cost effective tool for the measurement of viscosity of cements or other curing systems. The CPG Cement Extrusion Tester (CET™) is that instrument.

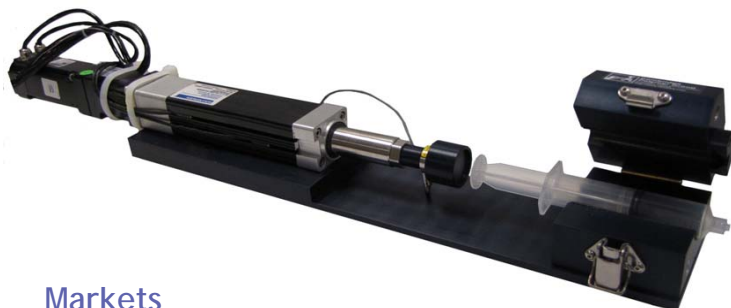


Description

The Cement Extrusion Tester (CET™) measures the force required to extrude a fluid from a standard disposable syringe at a wide range of speeds or shear rates, and calculates the instantaneous viscosity dynamically during the fluid’s cure. The CET is easy to operate and clean up, provides high throughput, and delivers highly accurate viscosity measurements at a very low cost. Temperature control is possible for close control of reaction kinetics and increased throughput. The system is small and easily contained in a fume hood for testing of hazardous materials. The custom developed control software is suitable for quality control applications, or testing that requires more detailed analysis.

Specifications

Size of tester (L x W x H)	610 x 150 x 150 mm
Size of control box (L x W x H)	460 x 250 x 100 mm
Wall shear rate (20 mL syringe)	~7 - 548 s ⁻¹
Viscosity (20 mL syringe)	50 - 5000 Pa.s



Markets

Quality control	Validation
Biomedical materials testing	General cement cure times

