

Application Note

/// Viscosity measurement of calcium and magnesium phosphate

PRODUCT

ROTAVISC hi-vi I Complete (0025000312)
labworldsoft® 6 Visc (0020101872)

INDUSTRY

Chemical

TASK / OVERVIEW

The requirement was to measure the viscosity trend of calcium and magnesium phosphate at an increasing speed of 6 to 20 rpm. The sample was stirred and thereby homogenized at a room temperature of 23.5 °C. Subsequently, its viscosity was measured with ROTAVISC hi-vi I and the spindle SP 9.

EXPERIMENTAL SETUP

Viscometer	ROTAVISC hi-vi I
Spindle	SP 9
Medium	Calcium and magnesium phosphate
Sample vessel	Customer's vessel
Speed	6 – 20 rpm
Sample temperature	23.5 °C

SAMPLE MATERIAL

Calcium- and magnesium phosphate (39 %) in glycerol



SAMPLE PREPARATION

The sample was homogenized by stirring prior to the measurement.

RESULT

Speed	Viscosity
6 rpm	7,000 mPas
8 rpm	7,700 mPas
10 rpm	8,520 mPas
12 rpm	9,433 mPas
14 rpm	10,486 mPas
18 rpm	13,000 mPas
20 rpm	14,220 mPas

The results show a shear-thickening behaviour of the sample.

