

**LONG-TERM RETARDANT
HYDRATION - VISCOSITY CURVES
TECHNICAL DATA SHEET**
(Ref: FSM 5160)

PRODUCT NAME: _____

SUBMITTING CO.: _____

FORMULATION IDENTIFICATION: _____

MIX RATIO RANGE: _____ lb/gal H₂O **OR** _____ gal/gal H₂O (Fill in one blank.)

Provide the data, graphs, or tables listed below for each mix ratio for which evaluation has been requested.¹

1. A graph of mixed retardant viscosity versus time since mixing, at a temperature test of 70 °F (21 °C). At a minimum, include viscosity at 10 minutes, 60 minutes, 4 hours, 8 hours, 24 hours, and 48 hours, after mixing.
2. A table of mixed retardant viscosity versus temperature of water used for mixing. Viscosity shall be measured at 10 minutes, 1 hour, and 24 hours following mixing. Temperatures of the tap water used for mixing shall be 40 °F (4 °C), 70 °F (21 °C), and 100 °F (38 °C).
3. A table of mixed retardant viscosity at 70 °F (21 °C), 1 hour and 24 hours following mixing, versus the thickener concentration from 25 percent to 200 percent of the nominal thickener concentration, i.e. if the thickener concentration is 1.0 percent then provide data for 0.25 percent, 0.5 percent, 0.75 percent ... up to 2.0 percent.

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¹ Measure viscosity using a Brookfield rotational viscometer (or equivalent) at 60 rpm. Use spindle 2 for viscosities between 1 and 500 centipoise and spindle 4 for viscosities greater than 500 centipoise.)