

	Buntrock Industries, Inc. Investment Casting Supplies	Document#: 7.18
		Rev#: 0
	Title: Slurry Foam Test	Page#: 1 of 2

Rev	Description of Change	Author	Date
0	Initial Release	Joe Norvell	2/4/14

1.0 Scope:

- 1.1 This test is designed to indicate how quickly air bubbles break on molds during the slurry draining process for slurries that use colloidal silica binder.

2.0 Purpose:

- 2.1 Air bubbles that appear on molds during the draining process should break quickly to improve surface quality in the case of prime dips and to reduce the risk of positive metal defects in the case of back-up dips. As a result, this test is used as a control to assess how well antifoam additives are working.

3.0 Hazard and Safety:

- 3.1 Consult the Material Safety Data Sheet (MSDS) for required handling procedures and Personal Protective Equipment (PPE) required.

4.0 Equipment:

- 4.1 Centrifuge tube.
- 4.2 Stop watch.
- 4.3 Antifoam agent.

5.0 Procedure:

- 5.1 Obtain sample of binder extracted from slurry per section 7.13.
- 5.2 Place approximately 10 ml of sample binder in a fresh centrifuge tube and attach cap.
- 5.3 Simultaneously begin shaking the centrifuge tube containing the sample and start stopwatch. After 10 seconds, stop shaking the tube and restart stop watch. Observe any foam that may appear on top of the binder and stop the stopwatch once all the foam has disappeared.
- 5.4 Record results along with date and slurry tank.

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6.0 Results:

- 6.1 If foam disappears within 30 seconds, the slurry has passed the test and no further action is required.
- 6.2 If foam disappears after 30 seconds, the slurry has failed. Add antifoam to slurry per recommendations of binder supplier and retest the slurry for conformance. Be careful not to overdose with antifoam.

7.0 References:

- 7.1 None.