HORIBA Scientific

Application Note

Pinto Bean Paste
ADS117

Particle Size Analysis of Pinto Bean Paste

Introduction

Bean paste is a milled bean product containing large sections of the seed coat along with varying sizes of ground cotyledons, the fleshy section of the bean. Particle size of these components has a direct effect on mouth feel, flavor, and consistency of the final product. To ensure a consistent product, a company should have some procedure to monitor and control size from batch to batch and facility to facility.

Analytical Test Method

Refractive Index (particle): 1.50-0.10i

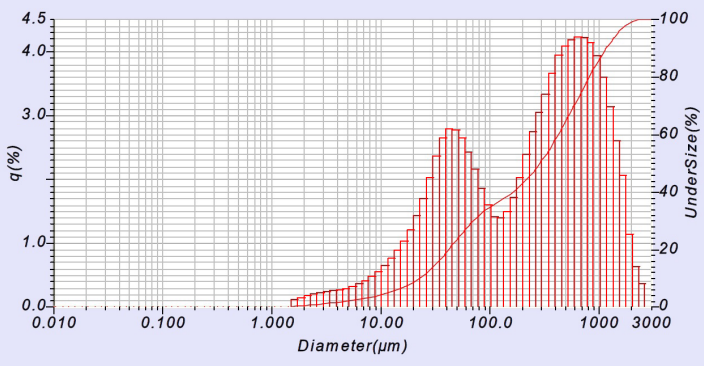
Dispersant fluid: Deionized water with no surfactant

Sonication: None

Circulation speed: 3

Agitation speed: 4

Notes: Let circulate for 30 seconds to mix and stabilize before taking measurements.



Example data

Median:	288 µm
Mean:	451 µm
S. D.:	485 µm
D(10%):	23.06 µm
D(90%):	1162 µm

Results

To verify the LA-960 results, this sample was wet sieved at 1700 microns. The sample weight retained on the sieve was 3.1g from a 100g sample. The measured result on the LA-960 was 3.7% above 1700 microns, confirming the excellent performance of the instrument at larger sizes.