



SETUP OF AUTOMATIC DRY MEASUREMENT PARTICA LA-960 WITH POWDERJET

Glass bead standards are commonly used to verify accuracy and proper operation of laser diffraction particle size analyzers. For verifying systems with dry powder sampling systems, proper conditions and procedures are necessary to ensure correct results. For the Partica LA-960, the PS-215 standard (10-100 μ m, 1g per bottle) is recommended.

NOTE: Whitehouse Scientific discontinued standard PS-215 and replaced it with PS-315 in 2014. HORIBA ATM103 for PS-215 has been superseded by ATM110 for PS-315.

Analytical test method

Applicable instruments: Partica LA-960 with PowderJet Dry Feeder

Set the following conditions:

- Basic Measurement Conditions
 - Sample Information:
 - Sample Name: PS-215
 - Material: Glass beads
 - Source: Whitehouse Scientific
 - Lot Number: XXXXX
 - Refractive Index : STD-GLASSBEADS (1.51-0.0i)
 - Form of Distribution: Manual
 - Iteration Number: 15
 - Distribution base: Volume
- Advanced Measurement Conditions
 - Sample Information tab
 - Input size of nozzle used (**SMALL** nozzle)
 - Measurement tab
 - Data acquisition times (Sample) : 50000
 - Data acquisition times (Blank) : 5000
 - System : Preparation tab
 - Configuration to Stop : Check all items
 - Configuration of Blank : Check Vacuum and Air
 - T% for Sampling : Yes, Max T%: 99, Min T% 95
 - Start Trigger : No
 - Stop Trigger : Yes, 99.8%, Stop After Waiting
 - Feeder Speed : Auto, 90-110, Init. Coefficient 1.0,
 - Air Pressure : 0.3 MPa (= 3 bar, ~ 45 psi)



Analytical Test Method

Particle Size Distribution Analyzer

Partica LA-960 PowderJet

ATM113

Dry Standard Measurement

Procedure:

1. Save Measurement Condition file. (.cdd extension)
2. Insert **SMALL** dispersion nozzle into dry cell.
3. Activate Vacuum and press Alignment. Inspect detector/channel baseline to determine cleanliness of dry cell glass.
4. Put the whole bottle of standard inside the rear of the chute. Crush all large agglomerates.
5. Manually feed sample to within 1-2" of chute hole.
6. Click Auto-Measurement.
7. Save data (or use AutoSave function).
8. Manually start Vacuum and Feeder to remove any remaining material from chute.

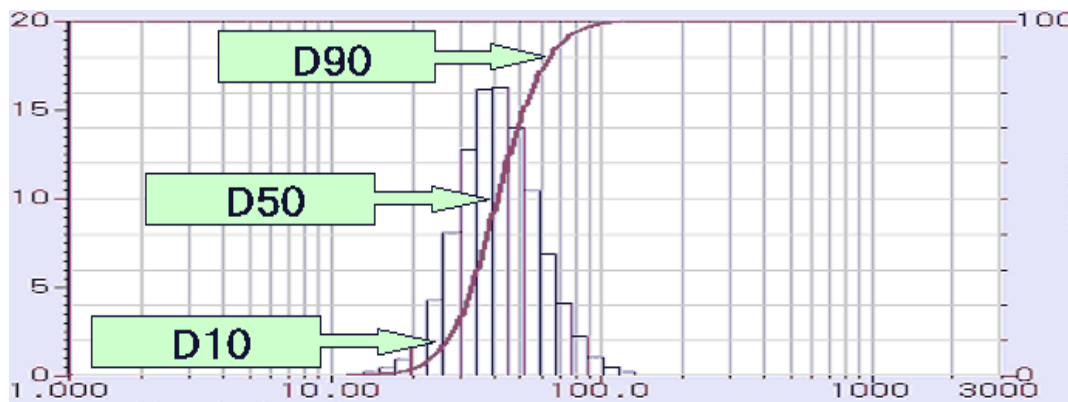
Results

Verify that the results are within the following specification:

D10: 22.13 - 28.82 microns

D50: 36.86 - 45.85 microns

D90: 56.86 - 69.31 microns



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Analytical Test Method

Particle Size Distribution Analyzer

Partica LA-960 PowderJet

ATM113

Dry Standard Measurement

Measurement Dialog

Load

Save

Sample information

Sample Name
PS215

Material
Glassbeads

Source
Whitehouse

Lot Number
XXXXX

Test or Assay. Number
You Initial

Refractive Index

File Name: STD-GLASSBEADS

Comment: STD-GLASSBEADS

Form of Distribution

Manual Auto

Condition Iteration Number 15

Distribution base

Volume Area
 Length Numbers



Analytical Test Method

Particle Size Distribution Analyzer

Partica LA-960 PowderJet

ATM113

Dry Standard Measurement

Advanced

Sample Information Calculation Measurement System System : Preparation

Other Information

Remarks 1	Remarks 6
SMALL NOZZLE	
Remarks 2	Remarks 7
YES T% FOR SAMPLING	
Remarks 3	Remarks 8
NO START TRIGGER	
Remarks 4	Remarks 9
STOP TRIGGER 99.9% STOP AFTER WAITING	
Remarks 5	Remarks 10
FEEDER SPEED AT 80	

OK Cancel



Analytical Test Method

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Dry Standard Measurement

Advanced

Sample Information Calculation Measurement System System : Preparation

Transmittance(R) Upper: 99 % Lower: 95 %

Data acquisition times(Sample)
LD 5000

Data acquisition times(Blank)
LD 5000

OK Cancel



Analytical Test Method

Particle Size Distribution Analyzer

Partica LA-960 PowderJet

ATM113

Dry Standard Measurement

Advanced

Sample Information Calculation Measurement System System : Preparation

Configuration to Stop after Measurement

Vacuum Air Feeder

Auto Measurement Button

Configuration of Blank Measurement

Current Vacuum Air

Sampling Condition

T% for sampling

Yes No

Max T% Min T%

Start trigger

Yes No

Intensity level Sensor No

Deley times to Start

Stop trigger

Yes No

Setting T% Stop immediately Stop after waiting

Feeder speed

Speed: Initial coefficient:

automatic Fixed

Response time : Target T%:

Air

Presser: MPa

OK Cancel