

LA-960 Result Interpretation

HORIBA Laser Scattering Particle Size Distribution Analyzer Partica LA-960

HORIBA LA960 for windows [Wet] Ver2.20

Sample Name	: HS-202	Median Size	: 14.56842(μm)
ID#	: 20061222310009	Mean Size	: 15.04520(μm)
Material	: glass beads	Mode Size	: 14.3386(μm)
Lot Number	: 01-01102	Diameter on Cumulative %	: (2)10.00 (%) - 9.2636(μm)
Data Name	: HS-202 - 1	(9)90.00 (%) - 21.4135(μm)	
Circulation Speed	: 5	Std.Dev.	: 4.8146(μm)
Ultra Sonic	: 05:00 (7)	CV	: 32.0006(%)
Agitation Speed	: 2	Span	: OFF
Transmittance(R)	: 82.7(%)		
Transmittance(B)	: 84.9(%)		
Sample Data Acquisition Times (LD)	: 5000		
Sample Data Acquisition Times (LED)	: 5000		
Refractive Index (R)	: STD-GLASSBEADS[STD-GLASSBEADS(1.510 - 0.000i),Water(1.333)]		
Refractive Index (B)	: STD-GLASSBEADS[STD-GLASSBEADS(1.510 - 0.000i),Water(1.333)]		
Distribution Base	: Volume		
Iteration Number	: 15		

Median Size: 50% of the population lies above and below this diameter. Also known as the D50.

Mean Size: The volume mean diameter. Also known as the d(4,3).

Mode Size: The peak of the frequency distribution.

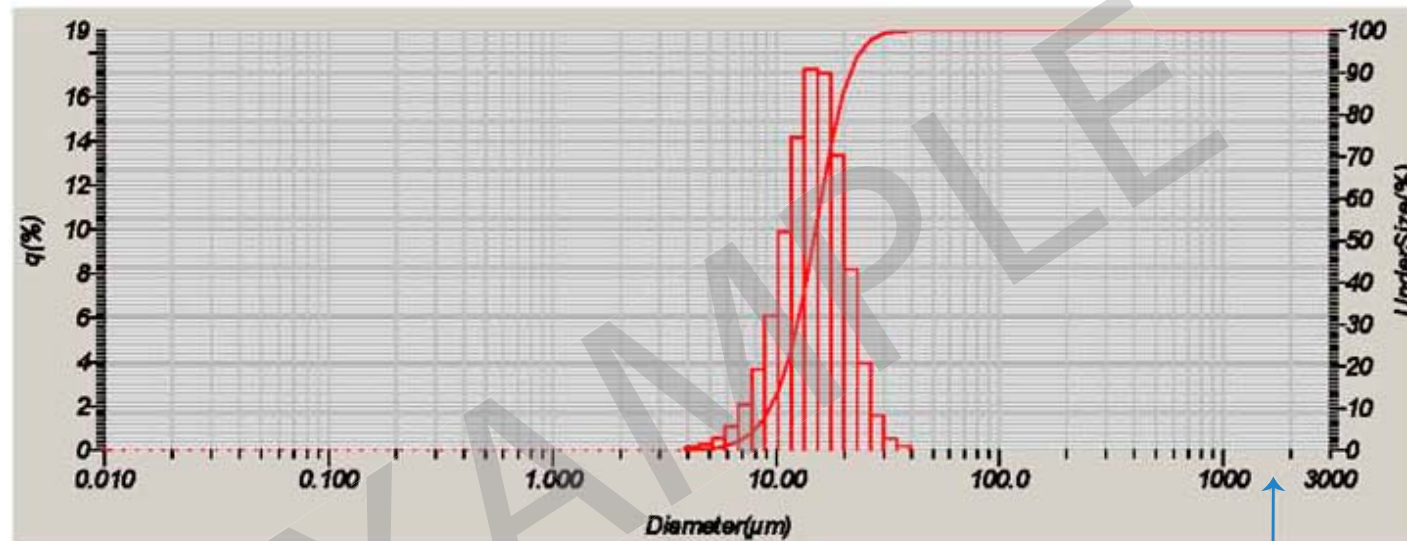
Diameter on Cumulative %: 10% of the population lies below the D10, 90% below the D90. Can be displayed as % above.

Std.Dev.: Standard deviation for the frequency distribution.

CV: The coefficient of variation for the frequency distribution.

Span: OFF if not used, default value is (D90-D10)/D50 if on.

Graph: Typically plotted with Diameter in microns on the x-axis, the y-axis is q%, the percent in a given histogram channel and the right y-axis shows the cumulative % above or below a point on the cumulative curve, if plotted.



No.	Diameter(μm)	q(%)	UnderSize(%)	No.	Diameter(μm)	q(%)	UnderSize(%)	No.	Diameter(μm)	q(%)	UnderSize(%)	No.	Diameter(μm)	q(%)	UnderSize(%)	No.	Diameter(μm)	q(%)	UnderSize(%)
1	0.011	0.000	0.000	24	0.259	0.000	0.000	47	5.867	0.557	0.982	70	133.103	0.000	100.000	93	3000.000	0.000	100.000
2	0.013	0.000	0.000	25	0.296	0.000	0.000	48	6.720	1.087	2.070	71	152.453	0.000	100.000				
3	0.015	0.000	0.000	26	0.339	0.000	0.000	49	7.697	2.056	4.125	72	174.616	0.000	100.000				
4	0.017	0.000	0.000	27	0.389	0.000	0.000	50	8.816	3.652	7.777	73	200.000	0.000	100.000				
5	0.020	0.000	0.000	28	0.445	0.000	0.000	51	10.097	6.085	13.862	74	229.075	0.000	100.000				
6	0.022	0.000	0.000	29	0.510	0.000	0.000	52	11.565	9.872	23.734	75	262.376	0.000	100.000				
7	0.026	0.000	0.000	30	0.584	0.000	0.000	53	13.246	14.179	37.913	76	300.518	0.000	100.000				
8	0.029	0.000	0.000	31	0.669	0.000	0.000	54	15.172	17.242	55.155	77	344.206	0.000	100.000				
9	0.034	0.000	0.000	32	0.766	0.000	0.000	55	17.377	17.070	72.225	78	394.244	0.000	100.000				
10	0.039	0.000	0.000	33	0.877	0.000	0.000	56	19.904	13.370	85.595	79	451.556	0.000	100.000				
11	0.044	0.000	0.000	34	1.005	0.000	0.000	57	22.797	8.177	93.772	80	517.200	0.000	100.000				
12	0.051	0.000	0.000	35	1.151	0.000	0.000	58	26.111	3.945	97.716	81	592.387	0.000	100.000				
13	0.058	0.000	0.000	36	1.318	0.000	0.000	59	29.907	1.562	99.278	82	678.504	0.000	100.000				
14	0.067	0.000	0.000	37	1.510	0.000	0.000	60	34.255	0.542	99.820	83	777.141	0.000	100.000				
15	0.076	0.000	0.000	38	1.729	0.000	0.000	61	39.234	0.180	100.000	84	890.116	0.000	100.000				
16	0.087	0.000	0.000	39	1.981	0.000	0.000	62	44.938	0.000	100.000	85	1019.515	0.000	100.000				
17	0.100	0.000	0.000	40	2.269	0.000	0.000	63	51.471	0.000	100.000	86	1167.725	0.000	100.000				
18	0.115	0.000	0.000	41	2.599	0.000	0.000	64	58.953	0.000	100.000	87	1337.461	0.000	100.000				
19	0.131	0.000	0.000	42	2.976	0.000	0.000	65	67.523	0.000	100.000	88	1531.914	0.000	100.000				
20	0.150	0.000	0.000	43	3.409	0.000	0.000	66	77.339	0.000	100.000	89	1754.613	0.000	100.000				
21	0.172	0.000	0.000	44	3.905	0.000	0.000	67	88.583	0.000	100.000	90	2009.687	0.000	100.000				
22	0.197	0.000	0.000	45	4.472	0.144	0.144	68	101.460	0.000	100.000	91	2301.841	0.000	100.000				
23	0.226	0.000	0.000	46	5.122	0.282	0.426	69	116.210	0.000	100.000	92	2636.467	0.000	100.000				

Table: Typically in columns showing the channel number (No.), the smallest size in a given channel in microns (Diameter μm), the percent in a given size channel (q%), followed by either the % below this channel (UnderSize %) or the % below this channel (OverSize %). Each size channel is defined by the smallest size and the largest size - shown in the net channel number. For example, the first channel is between 0.011 and 0.013 μm . The default number of size channels is 93, but may be adjusted by the operator. Note: The table, graph and other characteristics of the result can be customized by the end user to meet specific guidelines.

Sample Name, Material, Lot Number: Assigned by operator
ID#, Data Name: Assigned automatically.

Circulation Speed: Pump recirculation setting
Ultra Sonic: OFF if not used, time in sec and level if turned on
Agitation Speed: Stirrer speed in the sample reservoir.

Transmittance (R) & (B): The percentage of the red laser and blue LED power passing through the sample.

Sample Data Acquisition Times: Number of times the scattering pattern is collected. Default 5000 = 5 seconds.

Refractive Index (R) & (B): Real and imaginary R.I. of sample for red and blue light sources. Also, the R.I. of the dispersant.

Distribution Base: Volume, Area, Length, or Number based distribution calculation. Default for laser diffraction is volume.

Iteration Number: How many times the algorithm is applied before presenting the result. A typical value is 15.