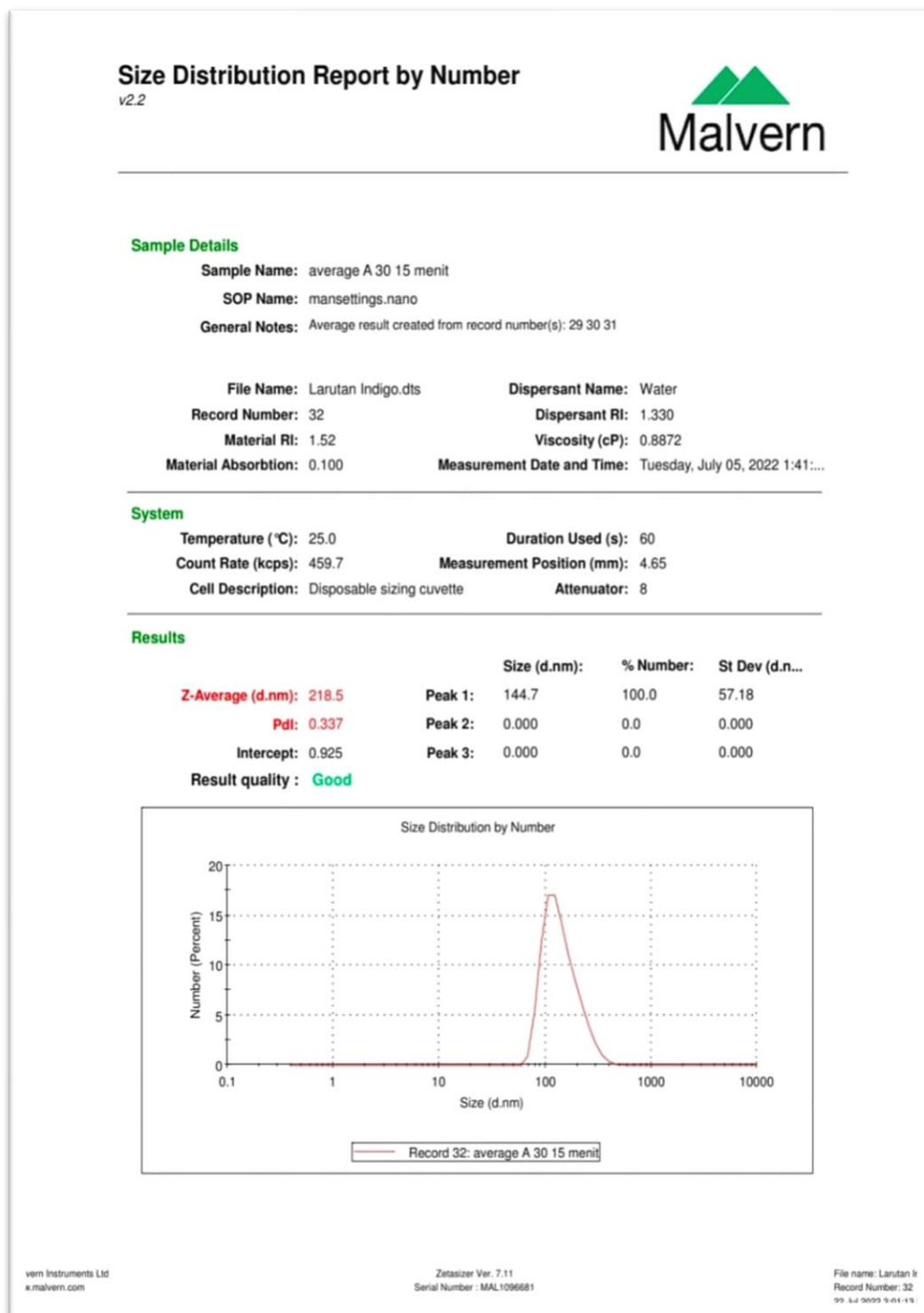


LAMPIRAN

A.1 Hasil Analisa *Particle size analyzer (PSA)* variasi waktu, homogenisasi *ultra* sonikasi *amplitude* 30% selama 15 menit



A.2 Hasil Analisa *Particle size analyzer (PSA)* variasi waktu, homogenisasi *ultra* sonikasi *amplitude* 30% selama 10 menit

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average A 30 10 menit

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 21 22 23

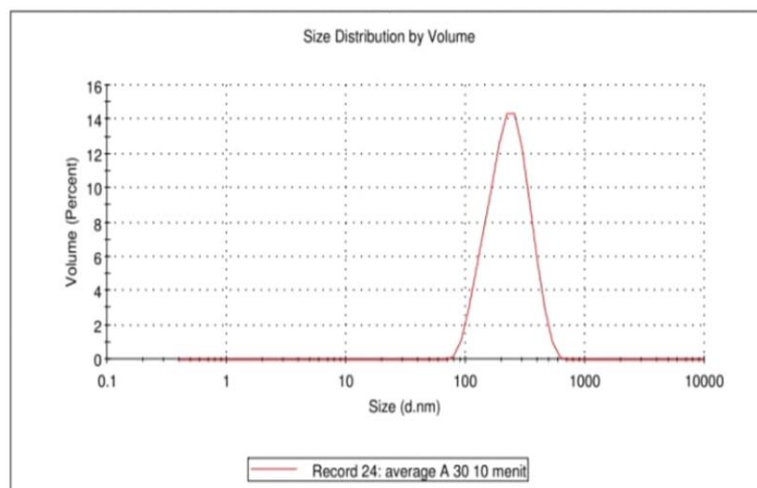
File Name: Larutan Indigo.dts	Dispersant Name: Water
Record Number: 24	Dispersant RI: 1.330
Material RI: 1.52	Viscosity (cP): 0.8872
Material Absorbton: 0.100	Measurement Date and Time: Tuesday, July 05, 2022 1:11:...

System

Temperature (°C): 25.0	Duration Used (s): 60
Count Rate (kcps): 387.5	Measurement Position (mm): 4.65
Cell Description: Disposable sizing cuvette	Attenuator: 8

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 247.0	Peak 1: 241.1	100.0	92.53
Pdl: 0.378	Peak 2: 0.000	0.0	0.000
Intercept: 0.936	Peak 3: 0.000	0.0	0.000
Result quality : Good			



A.3 Hasil Analisa *Particle size analyzer (PSA)* variasi waktu, homogenisasi *ultra* sonikasi *amplitude* 30% selama 5 menit

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average A 30 5 menit

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 25 26 27

File Name: Larutan Indigo.dts

Dispersant Name: Water

Record Number: 28

Dispersant RI: 1.330

Material RI: 1.52

Viscosity (cP): 0.8872

Material Absorbtion: 0.100

Measurement Date and Time: Tuesday, July 05, 2022 1:26...

System

Temperature (°C): 25.0

Duration Used (s): 80

Count Rate (kcps): 157.7

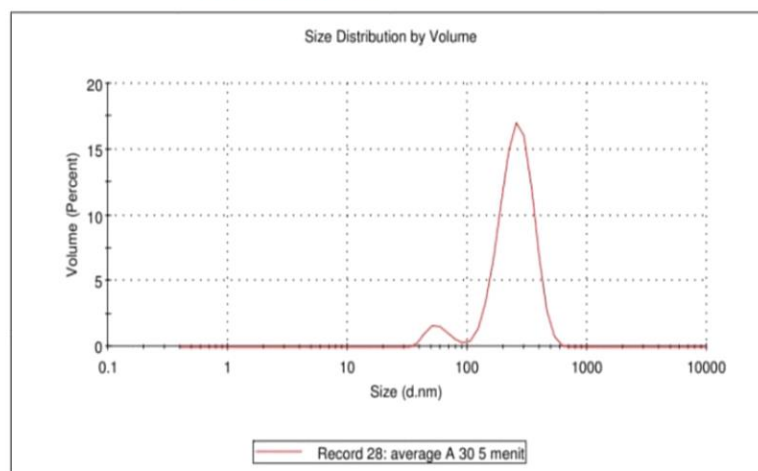
Measurement Position (mm): 4.65

Cell Description: Disposable sizing cuvette

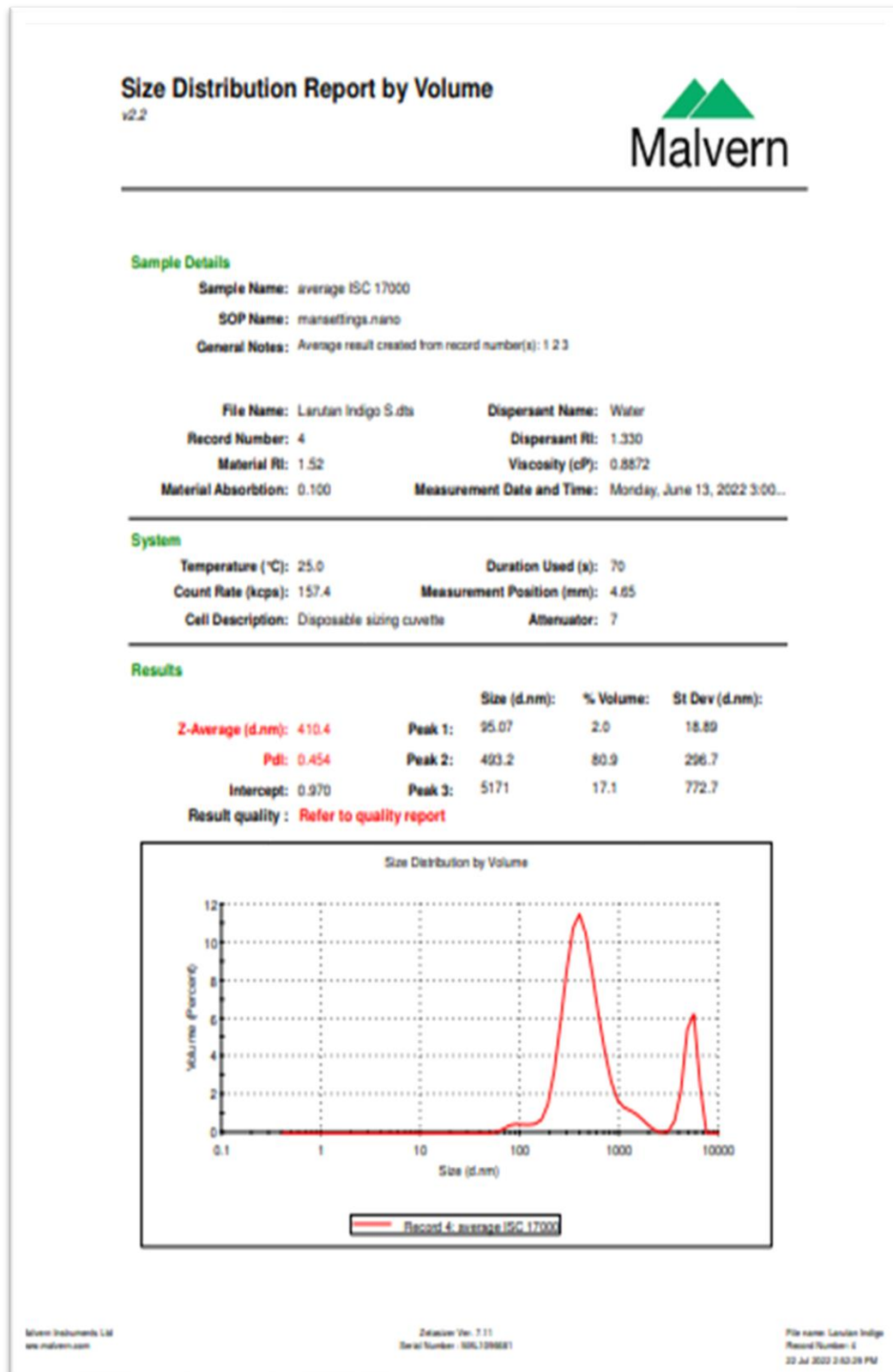
Attenuator: 7

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 293.6	Peak 1: 265.4	93.4	83.04
Pdl: 0.378	Peak 2: 58.53	6.6	13.29
Intercept: 0.961	Peak 3: 0.000	0.0	0.000
Result quality: Refer to quality report			



B.1 Hasil analisa *Particle size analyzer (PSA)* variasi kecepatan putaran, homogenisasi *ultra turrax* 17.000 rpm



B.2 Hasil analisa *Particle size analyzer (PSA)* kecepatan putaran, homogenisasi *ultra turrax* 18.000 rpm

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average ISC 18000

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 5 6 7

File Name: Larutan Indigo S.dts

Dispersant Name: Water

Record Number: 8

Dispersant RI: 1.330

Material RI: 1.52

Viscosity (cP): 0.8872

Material Absorption: 0.100

Measurement Date and Time: Monday, June 13, 2022 3:13...

System

Temperature (°C): 25.0

Duration Used (s): 60

Count Rate (kcps): 352.6

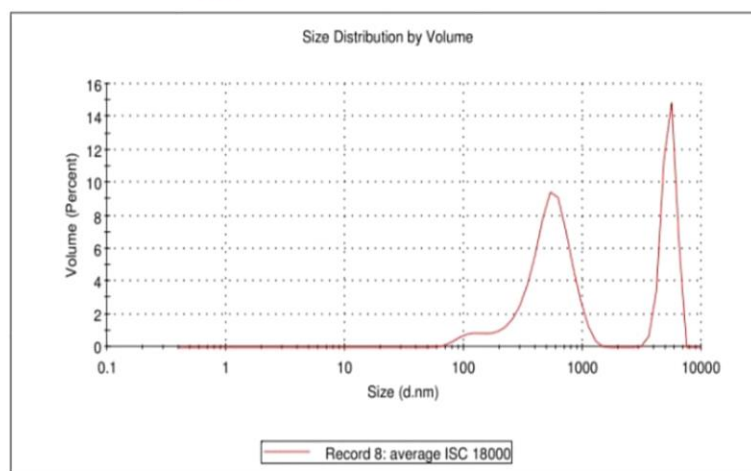
Measurement Position (mm): 4.65

Cell Description: Disposable sizing cuvette

Attenuator: 8

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 370.2	Peak 1: 121.7	4.4	28.90
Pdl: 0.438	Peak 2: 558.6	59.3	215.6
Intercept: 0.938	Peak 3: 5301	36.3	718.3
Result quality: Good			



B.3 Hasil analisa *Particle size analyzer (PSA)* kecepatan putaran, homogenisasi *ultra turrax* 19.000 rpm

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average ISC 19000

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 9 10 11

File Name: Larutan Indigo S.dts

Dispersant Name: Water

Record Number: 12

Dispersant RI: 1.330

Material RI: 1.52

Viscosity (cP): 0.8872

Material Absorbion: 0.100

Measurement Date and Time: Monday, June 13, 2022 3:25...

System

Temperature (°C): 25.0

Duration Used (s): 60

Count Rate (kcps): 274.1

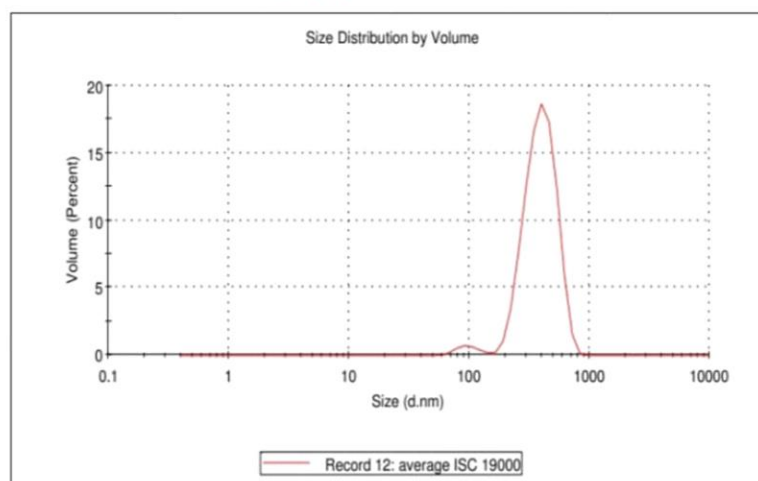
Measurement Position (mm): 4.65

Cell Description: Disposable sizing cuvette

Attenuator: 8

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 417.9	Peak 1: 400.4	97.3	114.0
PdI: 0.411	Peak 2: 98.32	2.7	20.18
Intercept: 0.959	Peak 3: 0.000	0.0	0.000
Result quality: Refer to quality report			



B.4 Hasil analisa *Particle size analyzer (PSA)* kecepatan putaran, homogenisasi *ultra turrax* 20.000 rpm

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average ISC 20000

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 13 14 15

File Name: Larutan Indigo S.dts	Dispersant Name: Water
Record Number: 16	Dispersant RI: 1.330
Material RI: 1.52	Viscosity (cP): 0.8872
Material Absorption: 0.100	Measurement Date and Time: Monday, June 13, 2022 3:35...

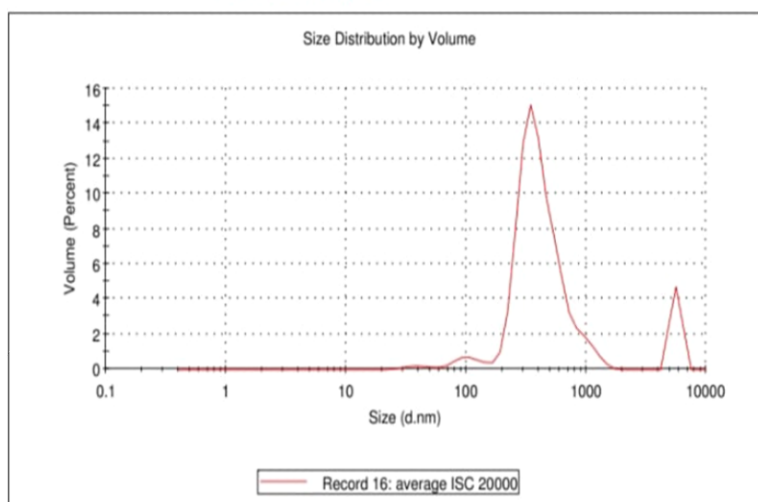
System

Temperature (°C): 25.0	Duration Used (s): 60
Count Rate (kcps): 300.9	Measurement Position (mm): 4.65
Cell Description: Disposable sizing cuvette	Attenuator: 8

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 474.4	Peak 1: 41.48	1.0	9.718
Pdl: 0.514	Peak 2: 108.9	3.5	29.47
Intercept: 0.967	Peak 3: 440.9	86.2	211.2

Result quality : Refer to quality report



C.1 Hasil Analisa *Particle size analyzer (PSA)* variasi perbandingan pasta indigo dengan Tween 80, homogenisasi *ultra turrax* 16.000 rpm, perbandingan 3:1

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average 3:1

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 9 10 11

File Name: Larutan Indigo S.dts

Dispersant Name: Water

Record Number: 12

Dispersant RI: 1.330

Material RI: 1.52

Viscosity (cP): 0.8872

Material Absorbtion: 0.100

Measurement Date and Time: Tuesday, December 28, 202...

System

Temperature (°C): 25.0

Duration Used (s): 70

Count Rate (kcps): 173.5

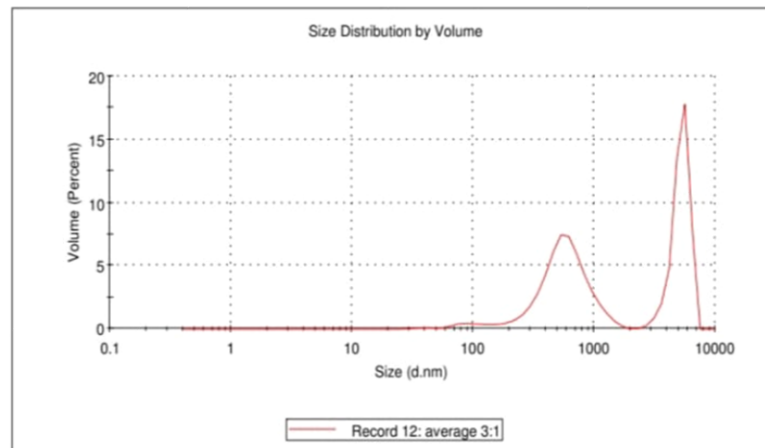
Measurement Position (mm): 4.65

Cell Description: Disposable sizing cuvette

Attenuator: 7

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 429.0	Peak 1: 41.20	0.4	6.726
Pdl: 0.485	Peak 2: 97.02	2.6	26.44
Intercept: 0.943	Peak 3: 615.1	50.2	271.9
Result quality : Good			



C.2 Hasil Analisa *Particle size analyzer (PSA)* variasi perbandingan pasta indigo dengan Tween 80, homogenisasi *ultra turrax* 16.000 rpm, perbandingan 2:1

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average 2:1

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 5 6 7

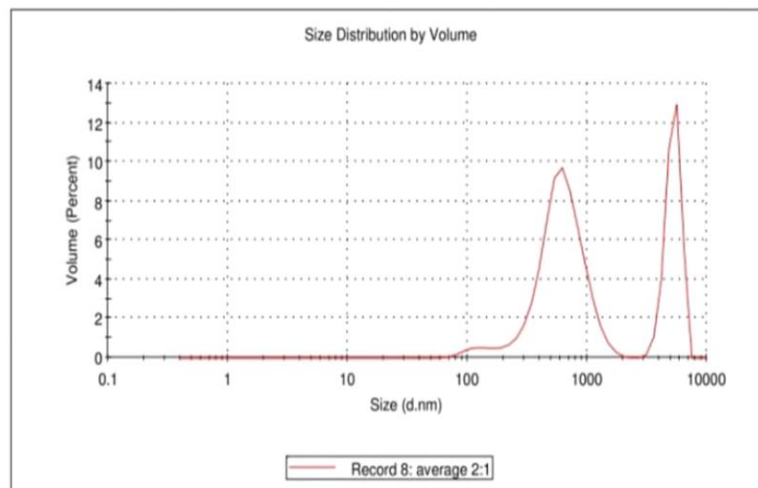
File Name: Larutan Indigo S.dts	Dispersant Name: Water
Record Number: 8	Dispersant RI: 1.330
Material RI: 1.52	Viscosity (cP): 0.8872
Material Absorbtion: 0.100	Measurement Date and Time: Tuesday, December 28, 202...

System

Temperature (°C): 25.0	Duration Used (s): 70
Count Rate (kcps): 154.0	Measurement Position (mm): 4.65
Cell Description: Disposable sizing cuvette	Attenuator: 7

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 459.4	Peak 1: 122.9	2.6	28.09
Pdl: 0.438	Peak 2: 654.1	63.4	276.4
Intercept: 0.952	Peak 3: 5215	34.0	757.9
Result quality : Good			



C.3 Hasil Analisa *Particle size analyzer (PSA)* variasi perbandingan pasta indigo dengan Tween 80, homogenisasi *ultra turrax* 16.000 rpm, perbandingan 1:1

Size Distribution Report by Volume

v2.2



Sample Details

Sample Name: average 1:1

SOP Name: mansettings.nano

General Notes: Average result created from record number(s): 1 2 3

File Name: Larutan Indigo S.dts

Dispersant Name: Water

Record Number: 4

Dispersant RI: 1.330

Material RI: 1.52

Viscosity (cP): 0.8872

Material Absorption: 0.100

Measurement Date and Time: Tuesday, December 28, 202...

System

Temperature (°C): 25.0

Duration Used (s): 60

Count Rate (kcps): 242.5

Measurement Position (mm): 4.65

Cell Description: Disposable sizing cuvette

Attenuator: 8

Results

	Size (d.nm):	% Volume:	St Dev (d.nm):
Z-Average (d.nm): 391.0	Peak 1: 486.1	47.0	176.6
Pdl: 0.491	Peak 2: 99.86	2.8	24.39
Intercept: 0.949	Peak 3: 5365	50.2	711.7
Result quality: Refer to quality report			

