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LAMPIRAN

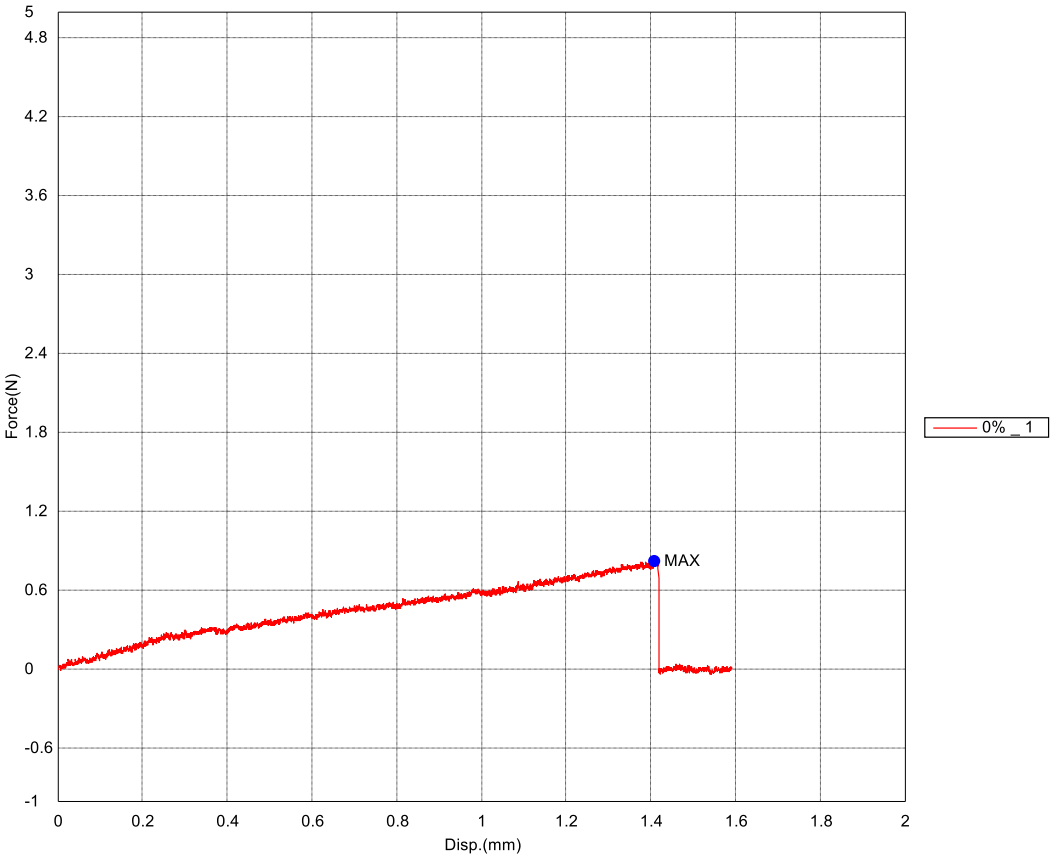
LAMPIRAN A DATA DAN GRAFIK HASIL PENGUJIAN

Lampiran 1 Data pengujian tarik serat tunggal eceng gondok

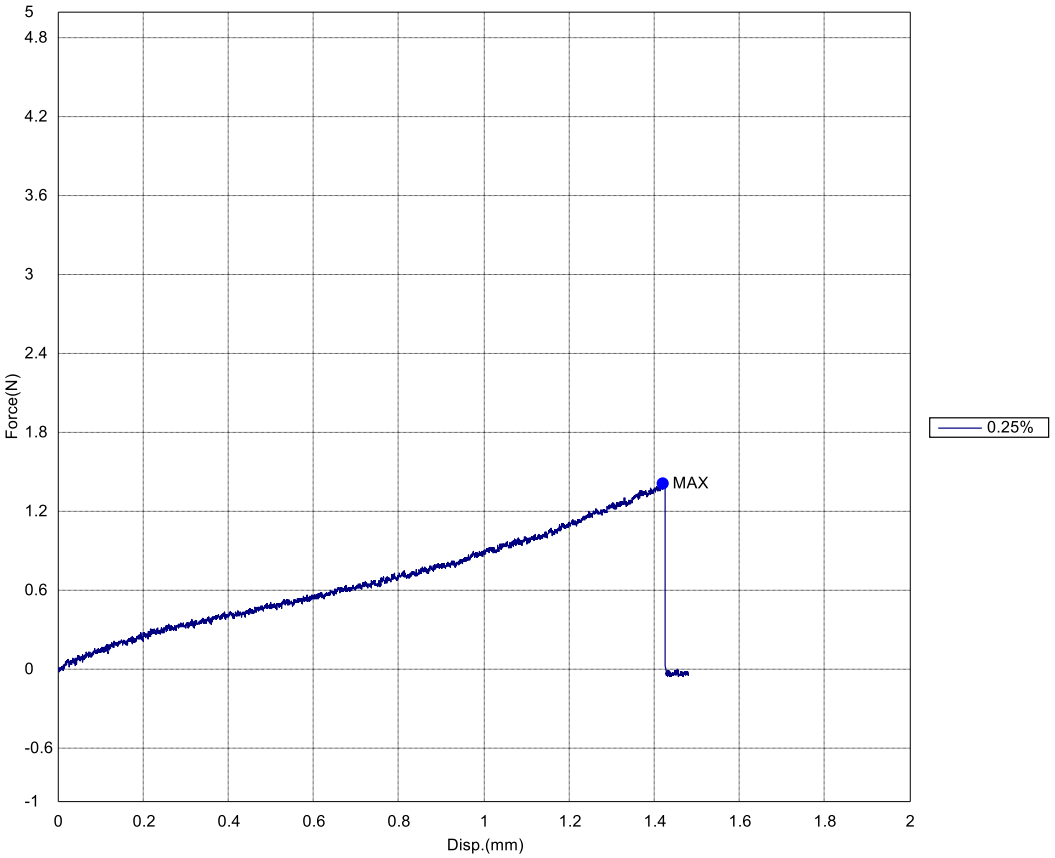
No	Name Unit	Linear Density	Gauge Length (mm)
1	0% (1)	0.0400	100.000
2	0.25% (1)	0.0300	100.000
3	0.5% (1)	0.0400	100.000
4	0% (2)	0.0300	100.000
5	0.25% (2)	0.0500	100.000
6	0.5% (2)	0.0300	100.000
7	0% (3)	0.0600	100.000
8	0.25% (3)	0.0300	100.000
9	0.5% (3)	0.0200	100.000

No	Name Parameters Unit	Max Force (N)	Max Displacement Area (mm)	Break Force (N)	Break Displacement (mm)
1	0% (1)	0.82413	1.40833	-	-
2	0.25% (1)	1.25170	1.28473	-	-
3	0.5% (1)	2.17120	1.18537	-	-
4	0% (2)	1.60217	1.31240	-	-
5	0.25% (2)	1.41780	1.42073	-	-
6	0.5% (2)	1.41223	1.37440	-	-
7	0% (3)	1.24613	1.67870	-	-
8	0.25% (3)	1.06017	1.55957	-	-
9	0.5% (3)	1.87079	1.15523	-	-

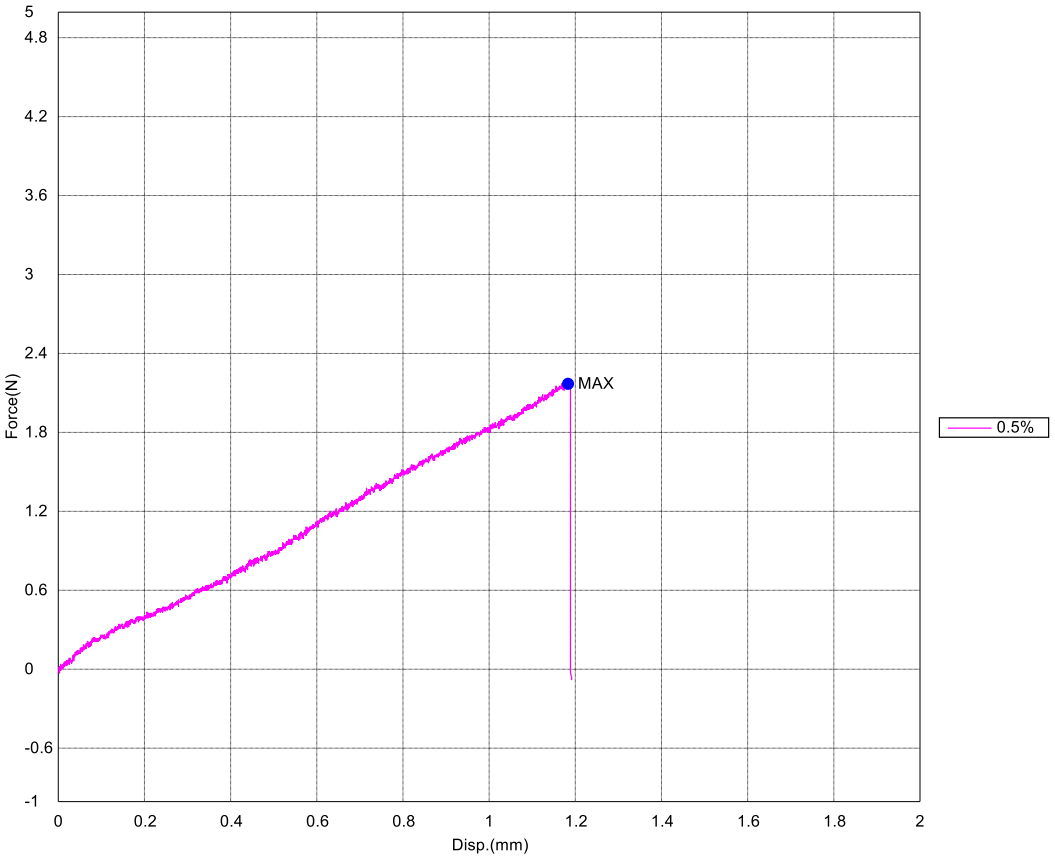
Lampiran 2 Grafik pengujian tarik serat tunggal eceng gondok 0% (1)



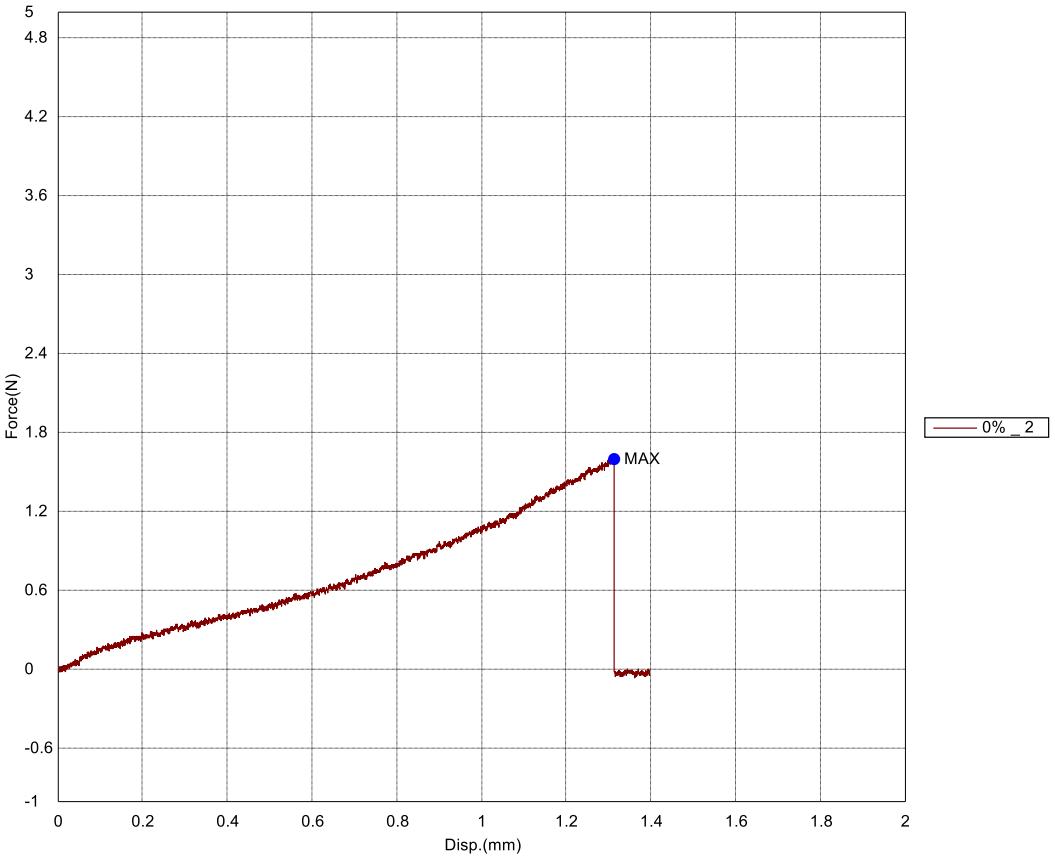
Lampiran 3 Grafik pengujian tarik serat tunggal eceng gondok 0.25% (1)



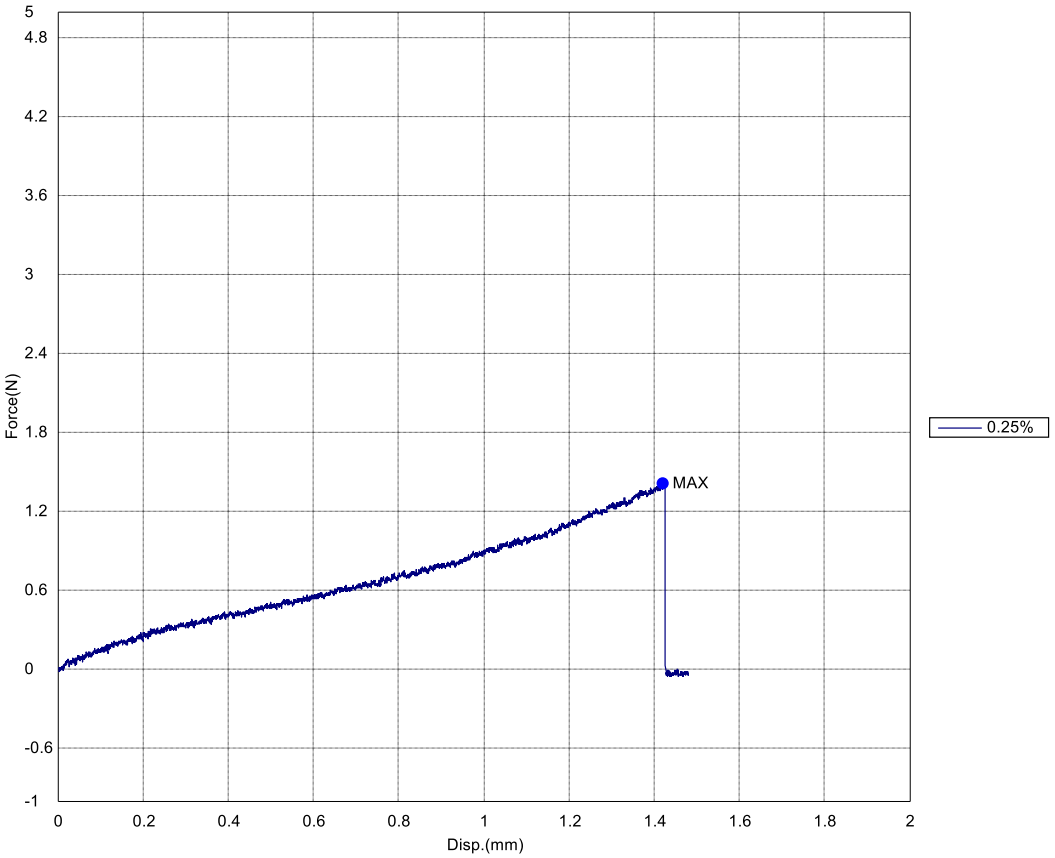
Lampiran 4 Grafik pengujian tarik serat tunggal eceng gondok 0.5% (1)



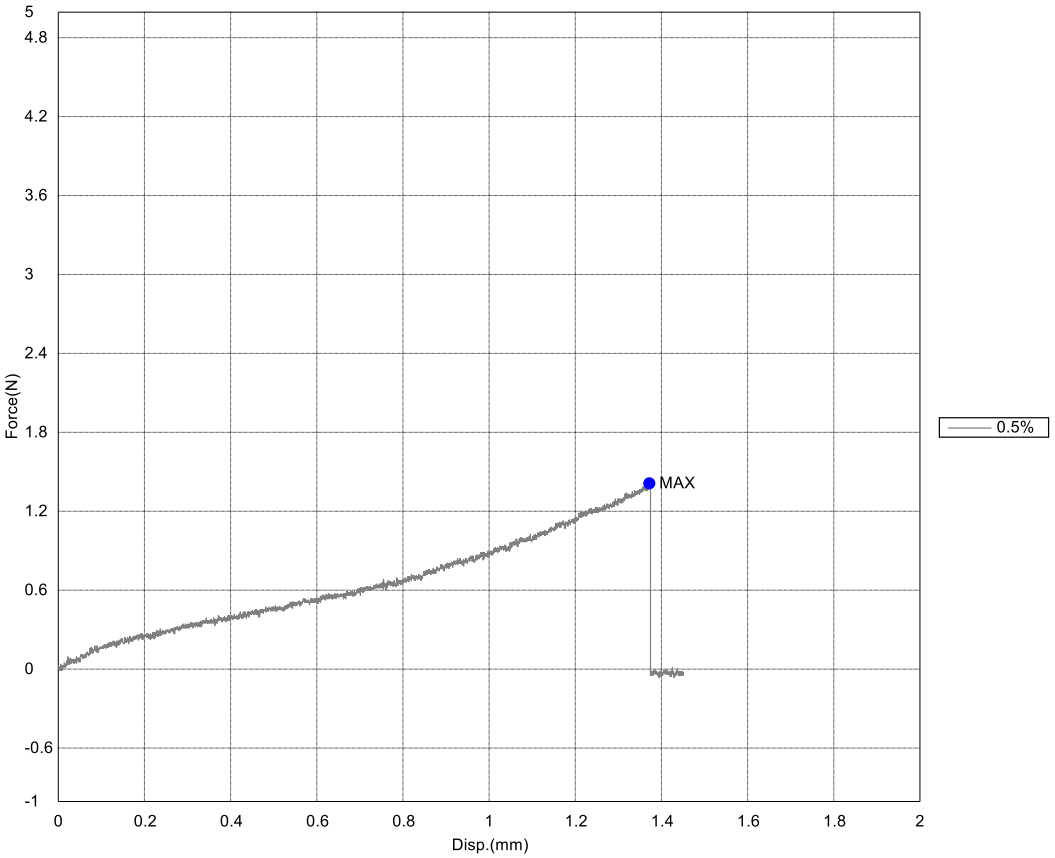
Lampiran 5 Grafik pengujian tarik serat tunggal eceng gondok 0% (2)



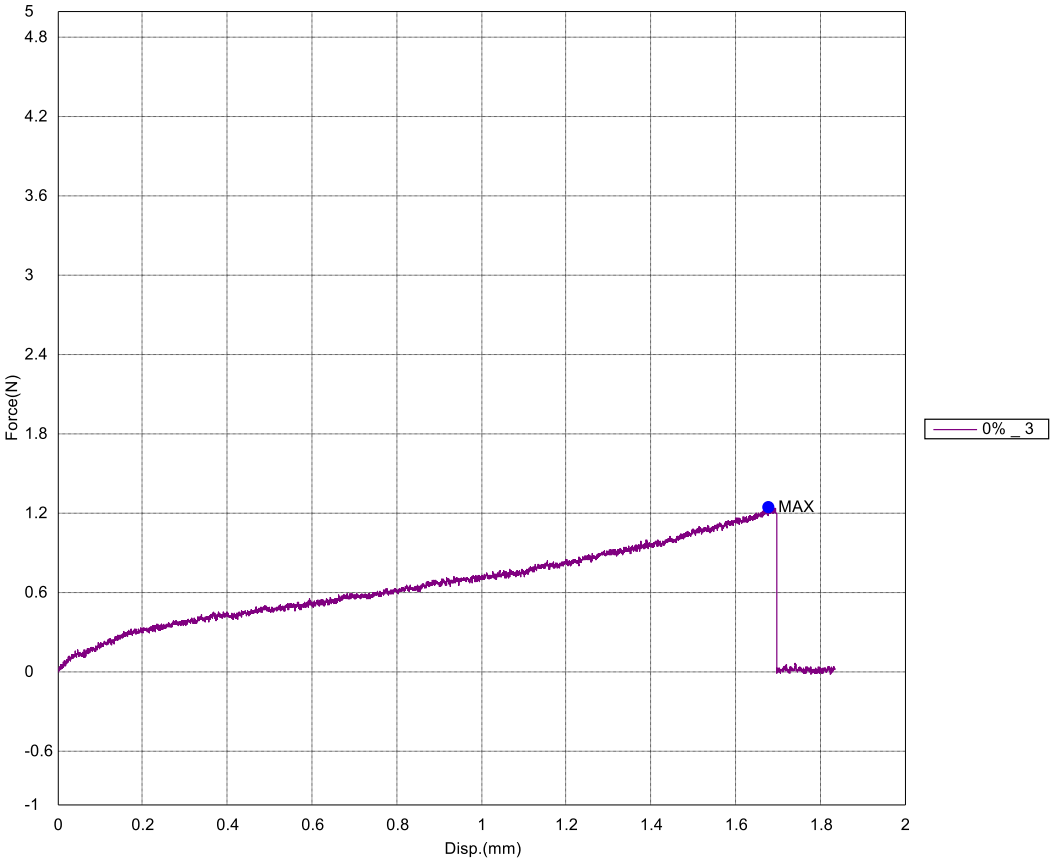
Lampiran 6 Grafik pengujian tarik serat tunggal eceng gondok 0.25% (2)



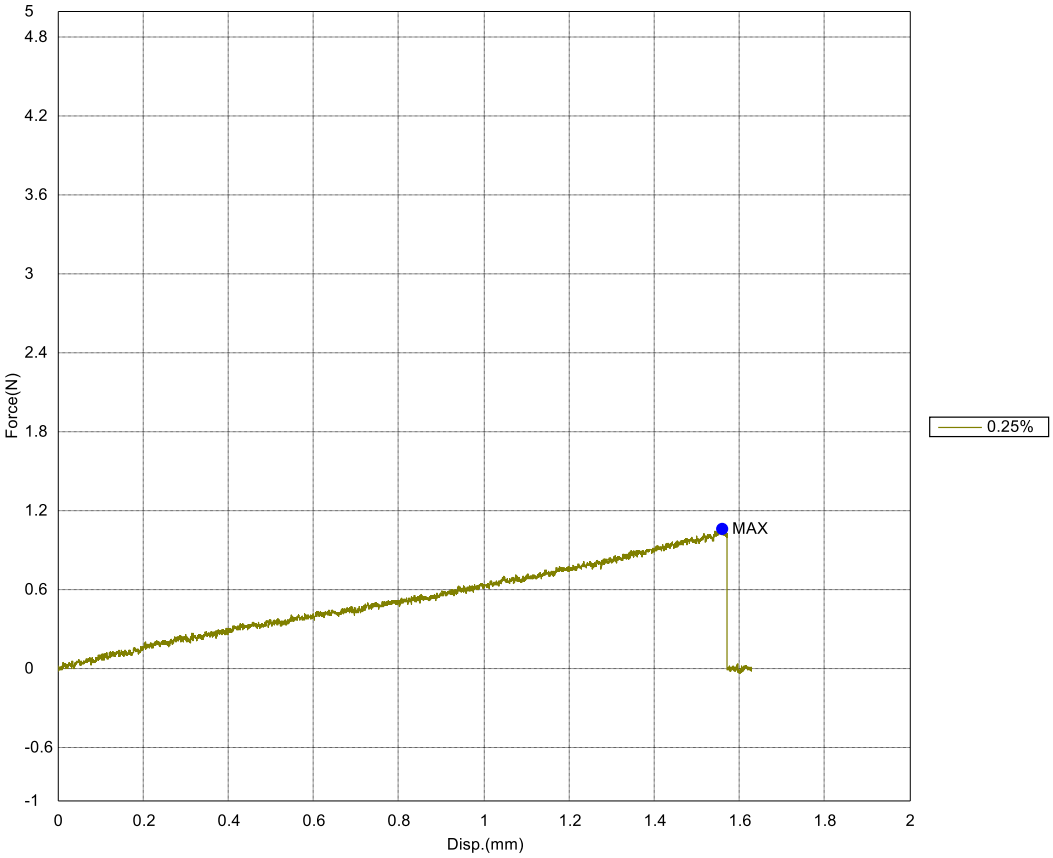
Lampiran 7 Grafik pengujian tarik serat tunggal eceng gondok 0.5% (2)



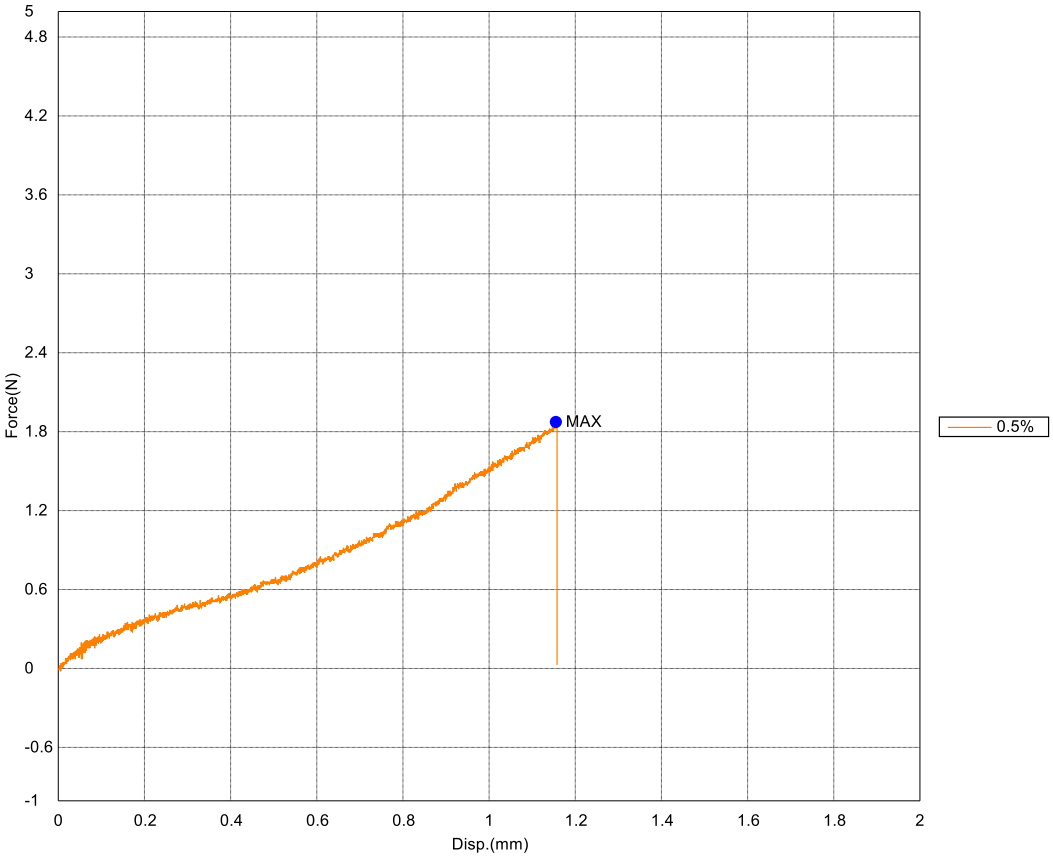
Lampiran 8 Grafik pengujian tarik serat tunggal eceng gondok 0% (3)



Lampiran 9 Grafik pengujian tarik serat tunggal eceng gondok 0.25% (3)



Lampiran 10 Grafik pengujian tarik serat tunggal eceng gondok 0.5% (3)

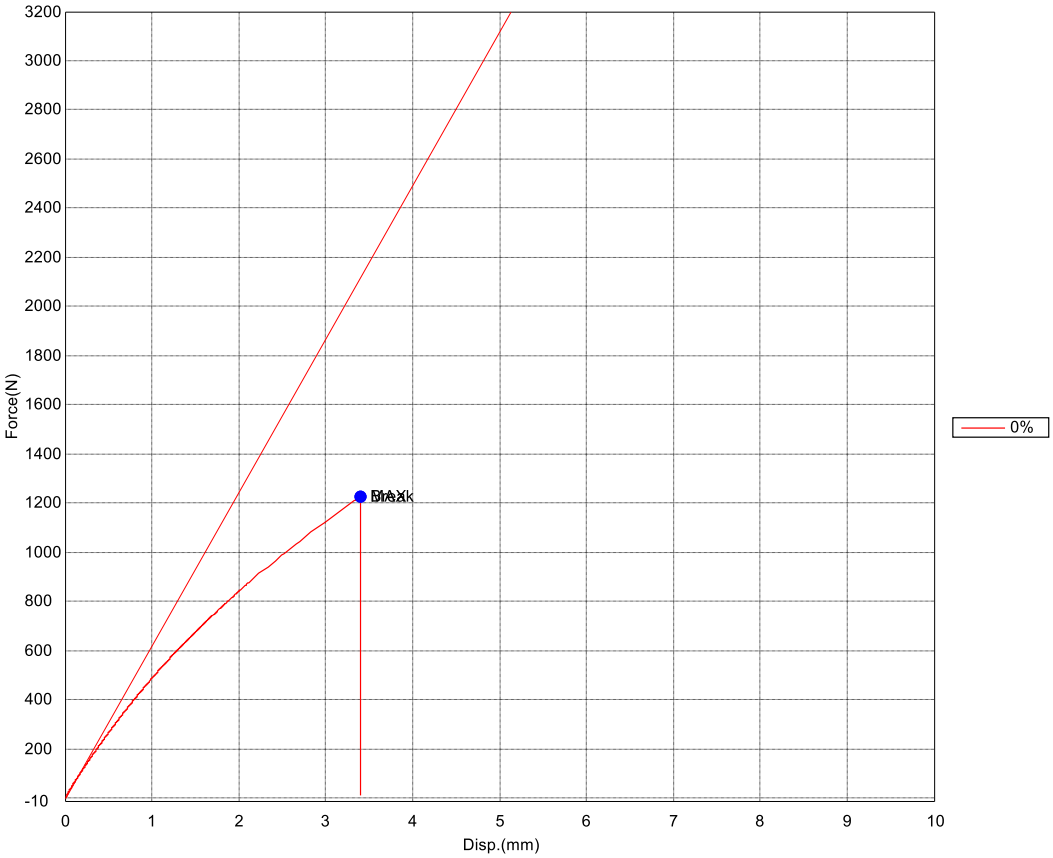


Lampiran 11 Data pengujian tarik komposit serat eceng gondok

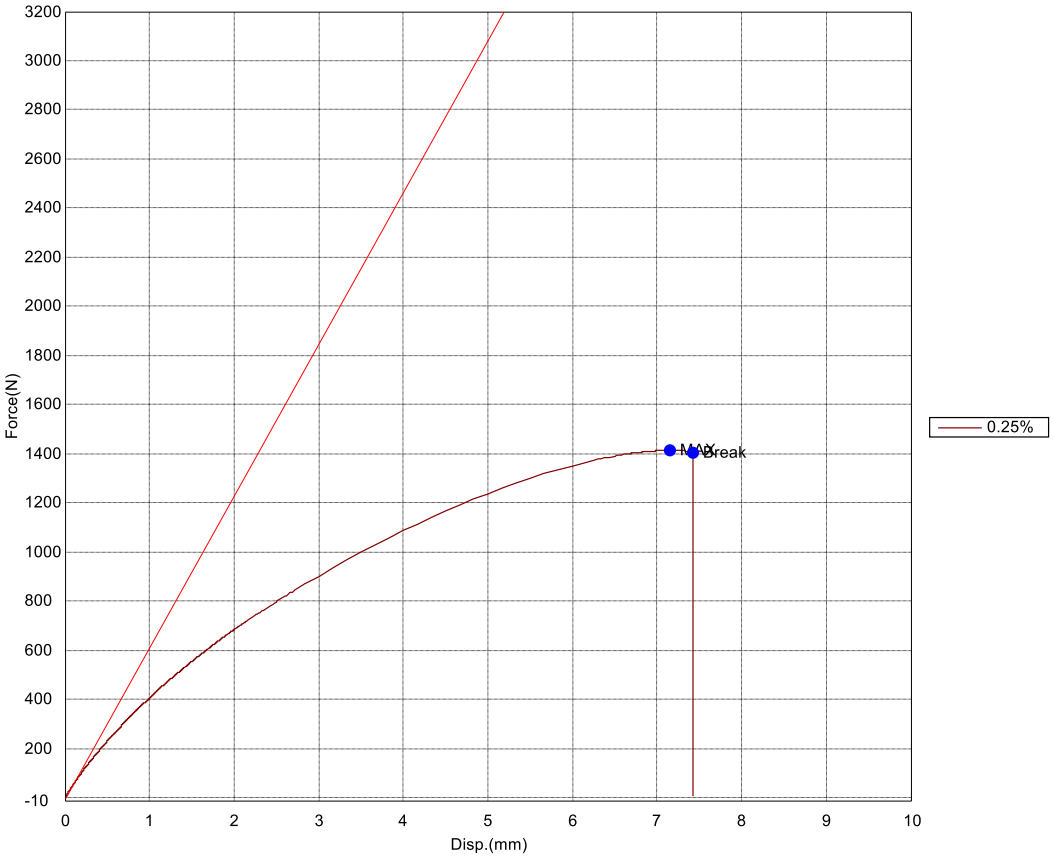
No	Name Unit	Thickness (mm)	Width (mm)	Gauge Length (mm)
1	0% (1)	3.0000	15.0000	150.0000
2	0.25% (1)	3.0000	15.0000	150.0000
3	0.5% (1)	3.0000	15.0000	150.0000
4	0% (2)	3.0000	15.0000	150.0000
5	0.25% (2)	3.0000	15.0000	150.0000
6	0.5% (2)	3.0000	15.0000	150.0000
7	0% (3)	3.0000	15.0000	150.0000
8	0.25% (3)	3.0000	15.0000	150.0000
9	0.5% (3)	3.0000	15.0000	150.0000

No	Name Parameters Unit	Elastic Force 10-20 N (N/mm^2)	Max Force (N)	Max Displacement Area (mm)	Break Force (N)	Break Displacement (mm)	Tegangan
1	0% (1)	2080.47	1226.23	3.39920	1226.23	3.39920	27.2496
2	0.25% (1)	2058.54	1414.40	7.14603	1414.40	7.42070	31.4311
3	0.5% (1)	2952.38	1879.41	4.00843	1879.41	4.00843	41.7647
4	0% (2)	2013.67	1674.37	5.88387	1674.37	5.88387	37.2082
5	0.25% (2)	2078.38	2024.30	6.59937	2024.30	6.59937	44.9844
6	0.5% (2)	2387.69	1987.24	6.51953	1987.24	6.51953	44.1609
7	0% (3)	2189.37	1685.73	5.17480	1685.73	5.17480	37.4607
8	0.25% (3)	2192.74	1744.83	6.09237	1744.83	6.16420	38.7740
9	0.5% (3)	2498.69	2185.29	6.91517	2185.29	6.91517	48.5620

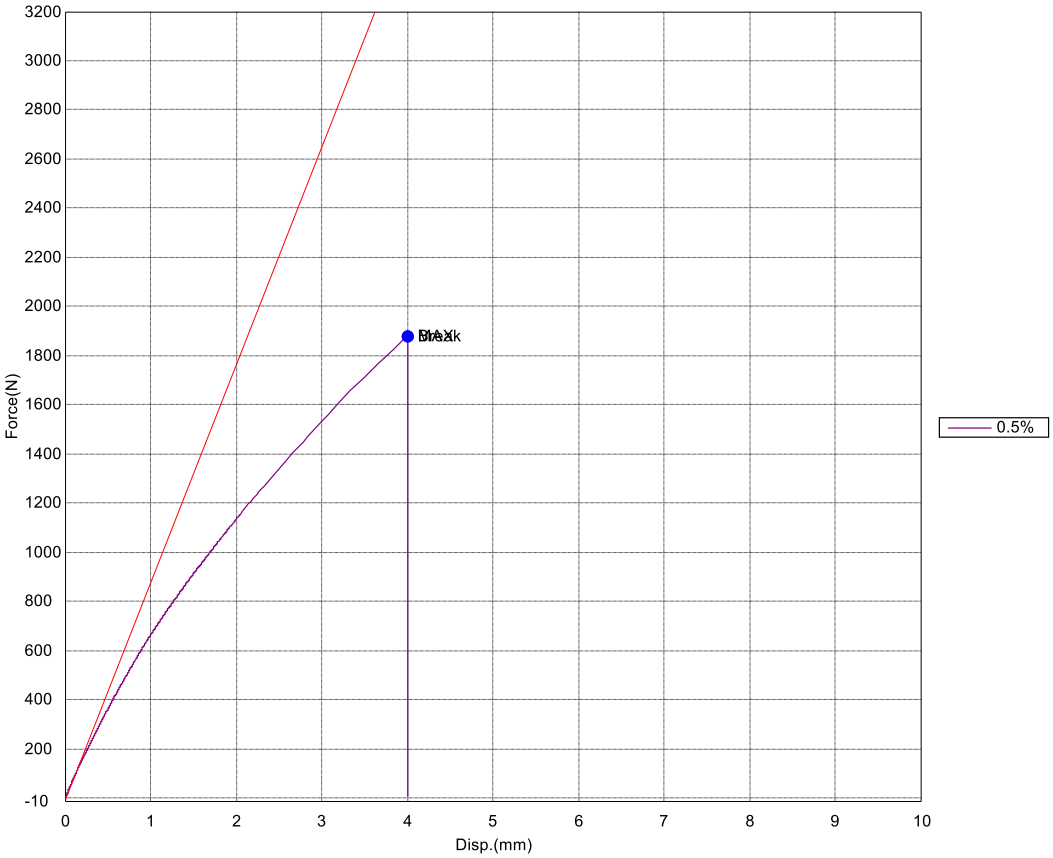
Lampiran 12 Grafik pengujian tarik komposit eceng gondok 0% (1)



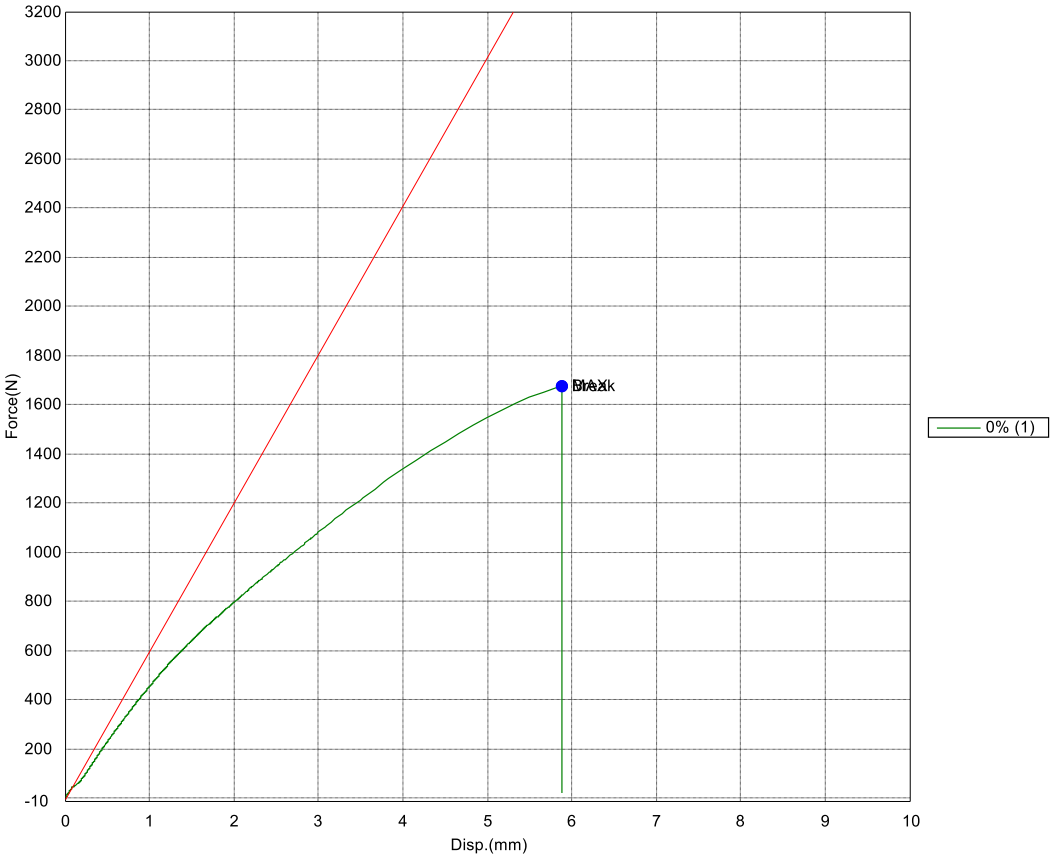
Lampiran 13 Grafik pengujian tarik komposit eceng gondok 0.25% (1)



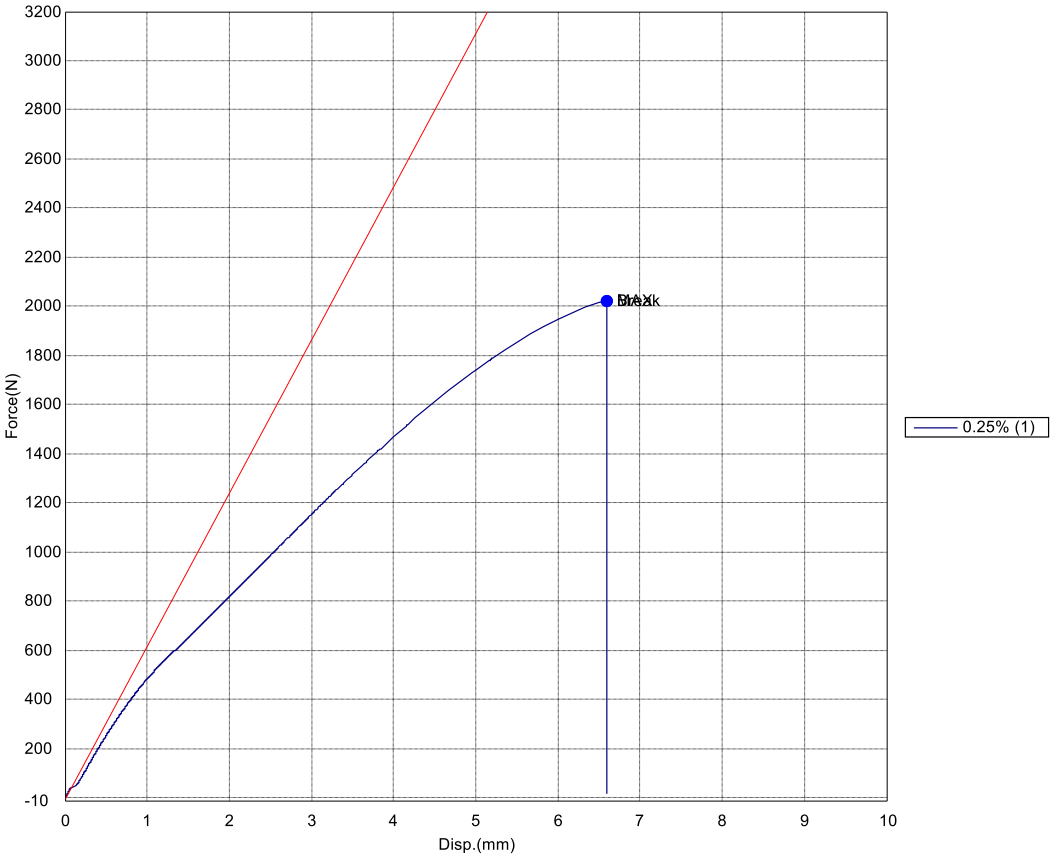
Lampiran 14 Grafik pengujian tarik komposit eceng gondok 0.5% (1)



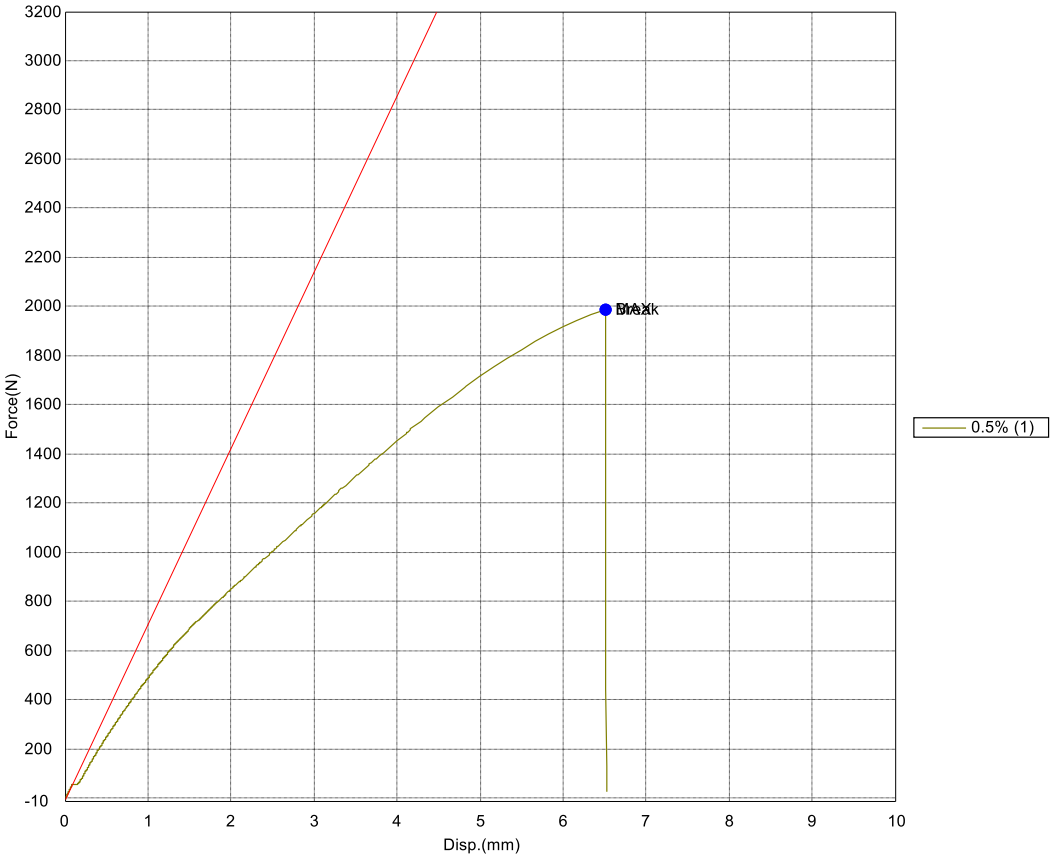
Lampiran 15 Grafik pengujian tarik komposit eceng gondok 0% (2)



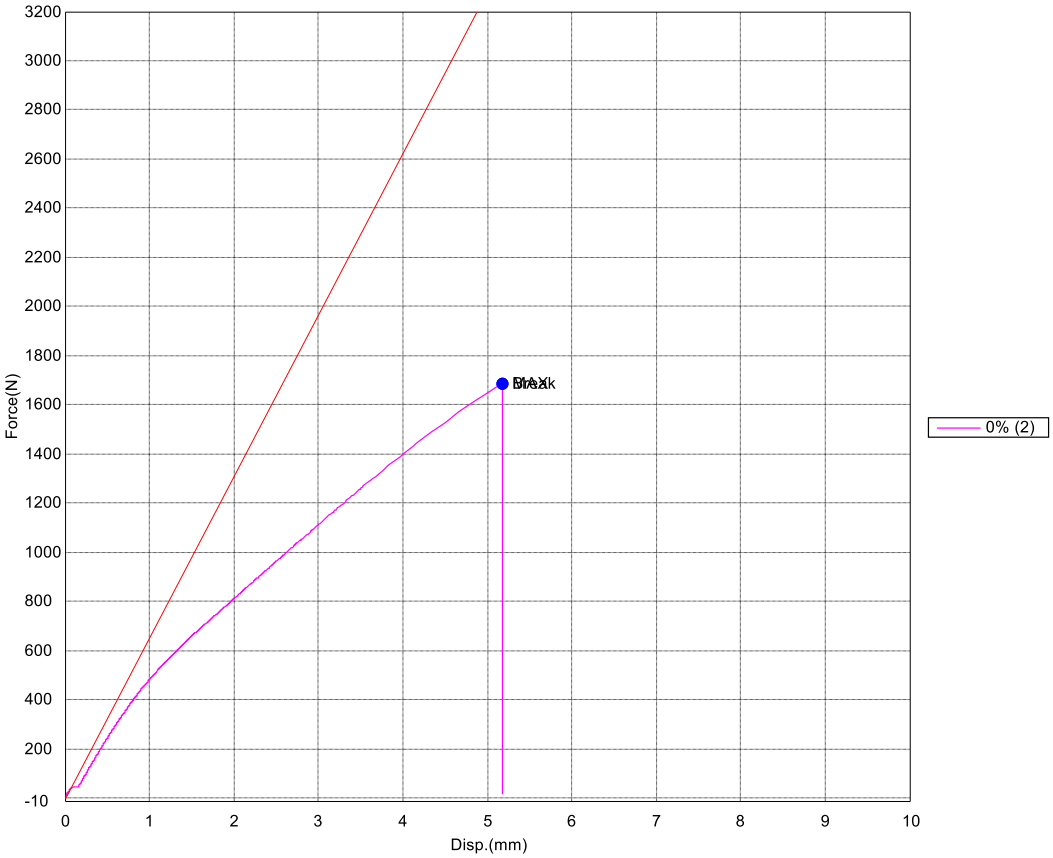
Lampiran 16 Grafik pengujian tarik komposit eceng gondok 0.25% (2)



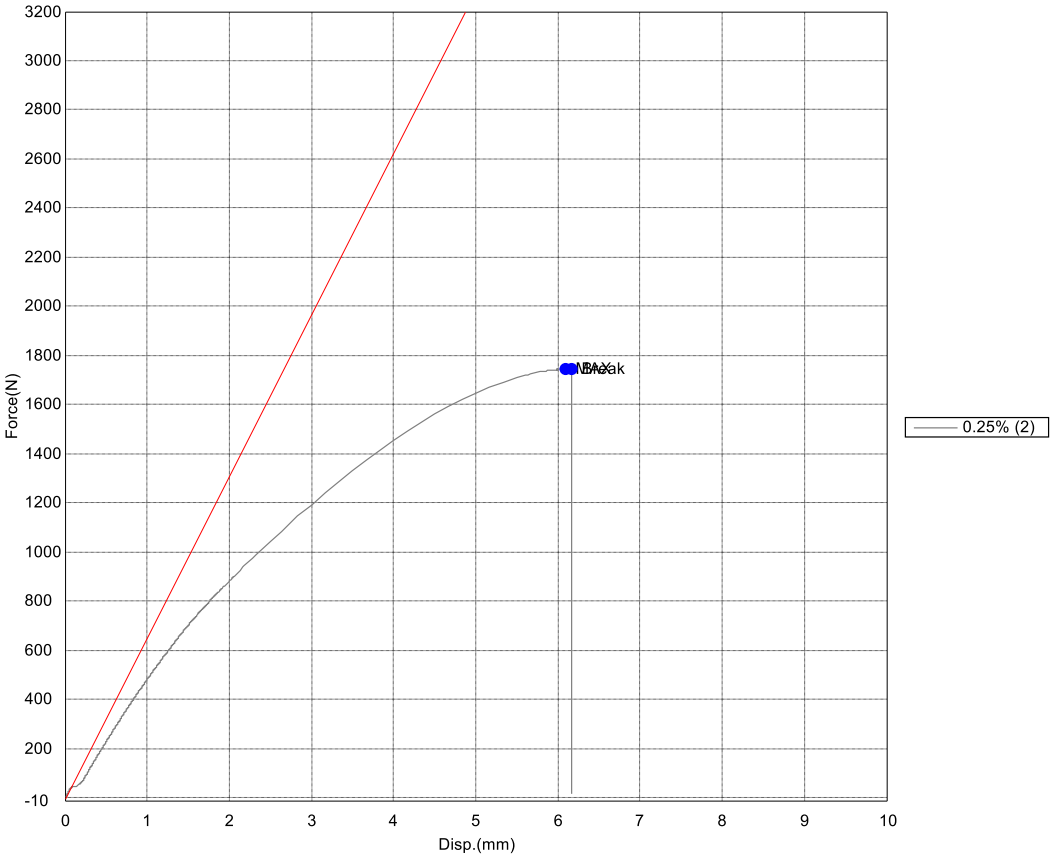
Lampiran 17 Grafik pengujian tarik komposit eceng gondok 0.5% (2)



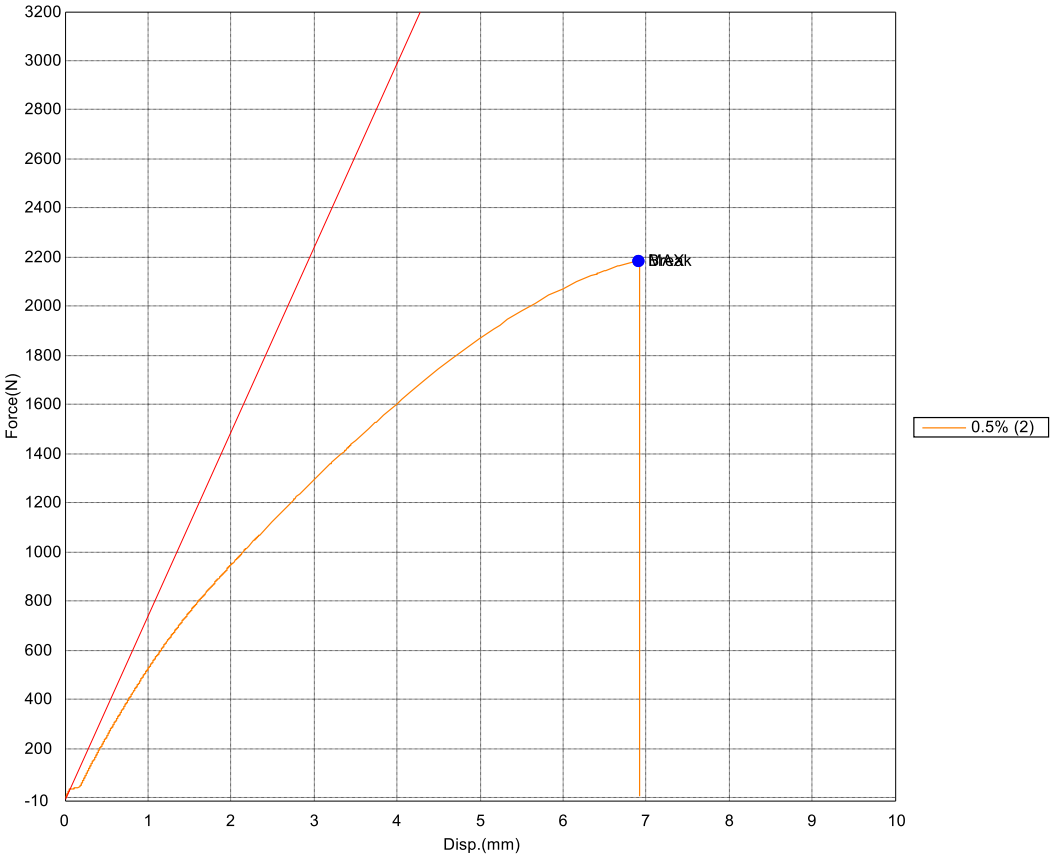
Lampiran 18 Grafik pengujian tarik komposit eceng gondok 0% (3)



Lampiran 19 Grafik pengujian tarik komposit eceng gondok 0.25% (3)



Lampiran 20 Grafik pengujian tarik komposit eceng gondok 0.5% (3)

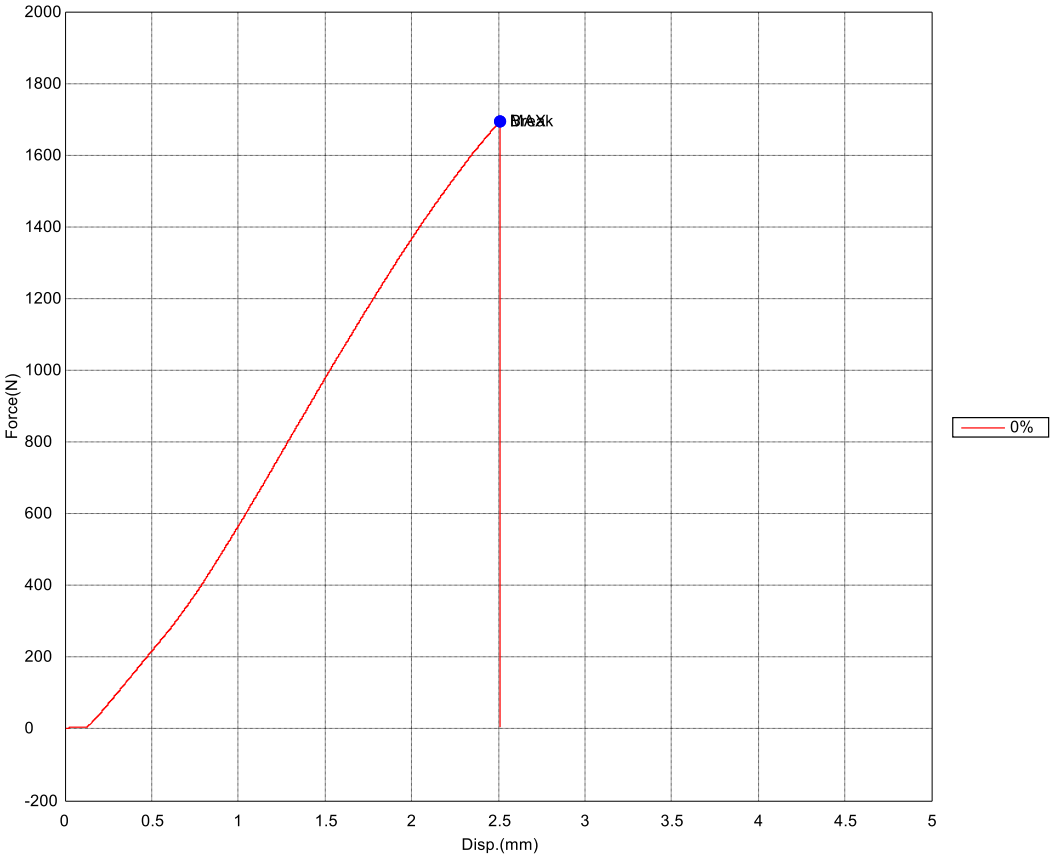


Lampiran 21 Tabel data pengujian bending komposit serat eceng gondok

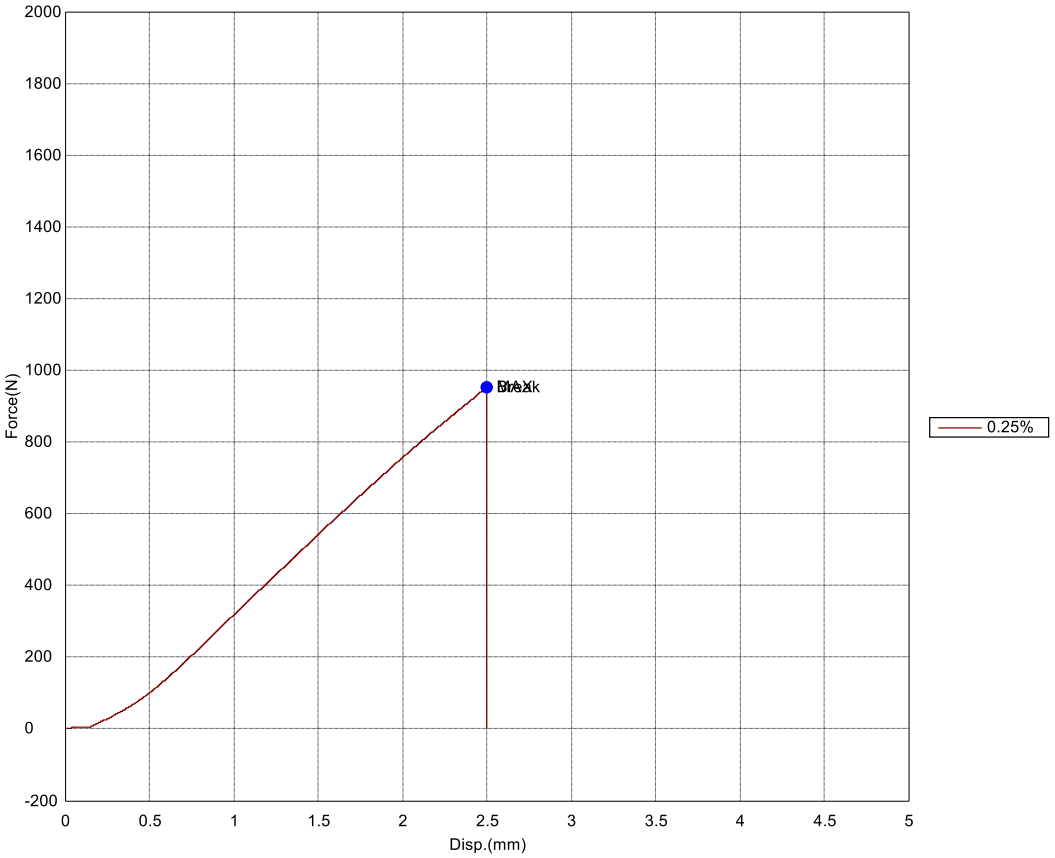
No	Name Unit	Thickness (mm)	Width (mm)	Lower Support (mm)
1	0% (1)	9.8500	14.9700	35.0000
2	0.25% (1)	9.7500	14.3400	35.0000
3	0.5% (1)	9.3300	15.3300	35.0000
4	0% (2)	9.4000	14.5700	35.0000
5	0.25% (2)	9.6000	14.5000	35.0000
6	0.5% (2)	9.5000	13.7300	35.0000
7	0% (3)	10.2000	14.0200	35.0000
8	0.25% (3)	9.2000	14.8500	35.0000
9	0.5% (3)	9.1000	13.5900	35.0000

No	Name Parameters Unit	Max Force (N)	Max Displacement Area (mm)	Break Force Sensitivity (N)	Break Displacement Sensitivity (mm)
1	0% (1)	1693.50	2.51003	1693.50	2.51003
2	0.25% (1)	1352.03	2.49877	1352.03	2.49877
3	0.5% (1)	1185.02	2.03080	1185.02	2.03080
4	0% (2)	1673.57	2.70177	1673.57	2.70177
5	0.25% (2)	1724.08	2.82410	1724.08	2.82410
6	0.5% (2)	1531.36	3.18113	1531.36	3.18113
7	0% (3)	1278.51	1.81360	1278.51	1.81360
8	0.25% (3)	1479.22	2.46777	1479.22	2.46777
9	0.5% (3)	1137.63	1.79077	1137.63	1.79077

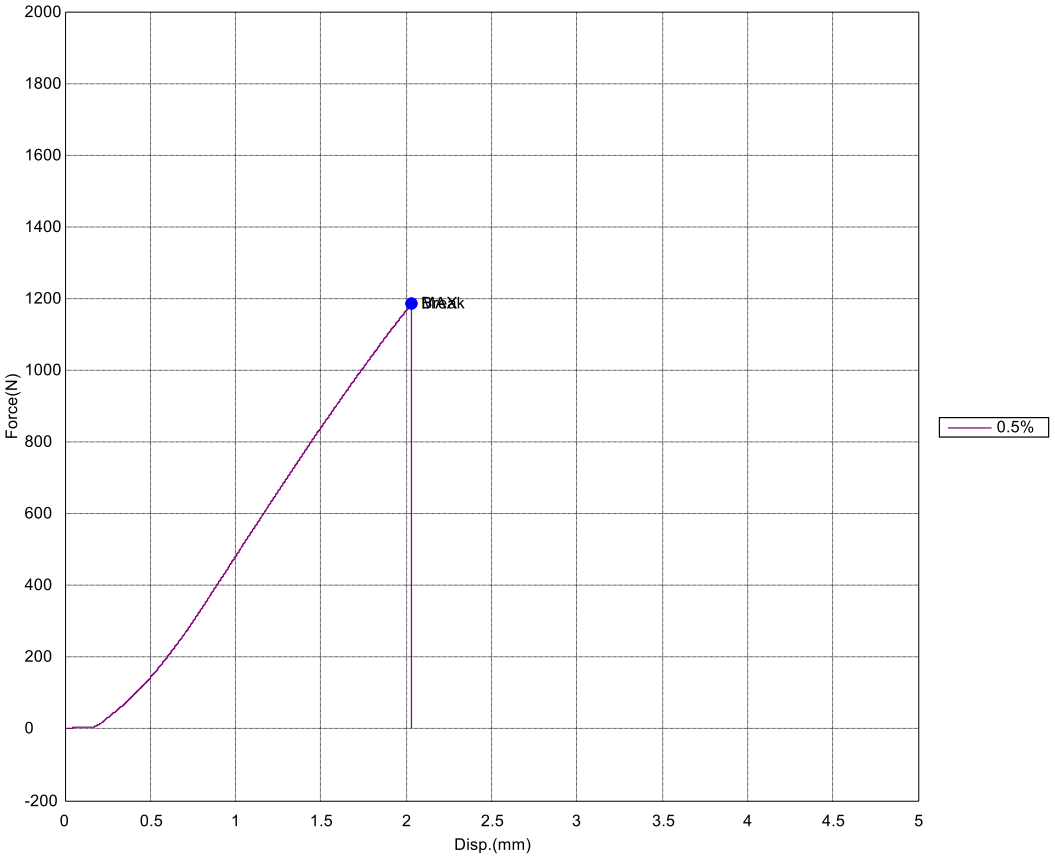
Lampiran 22 Grafik pengujian bending komposit eceng gondok 0% (1)



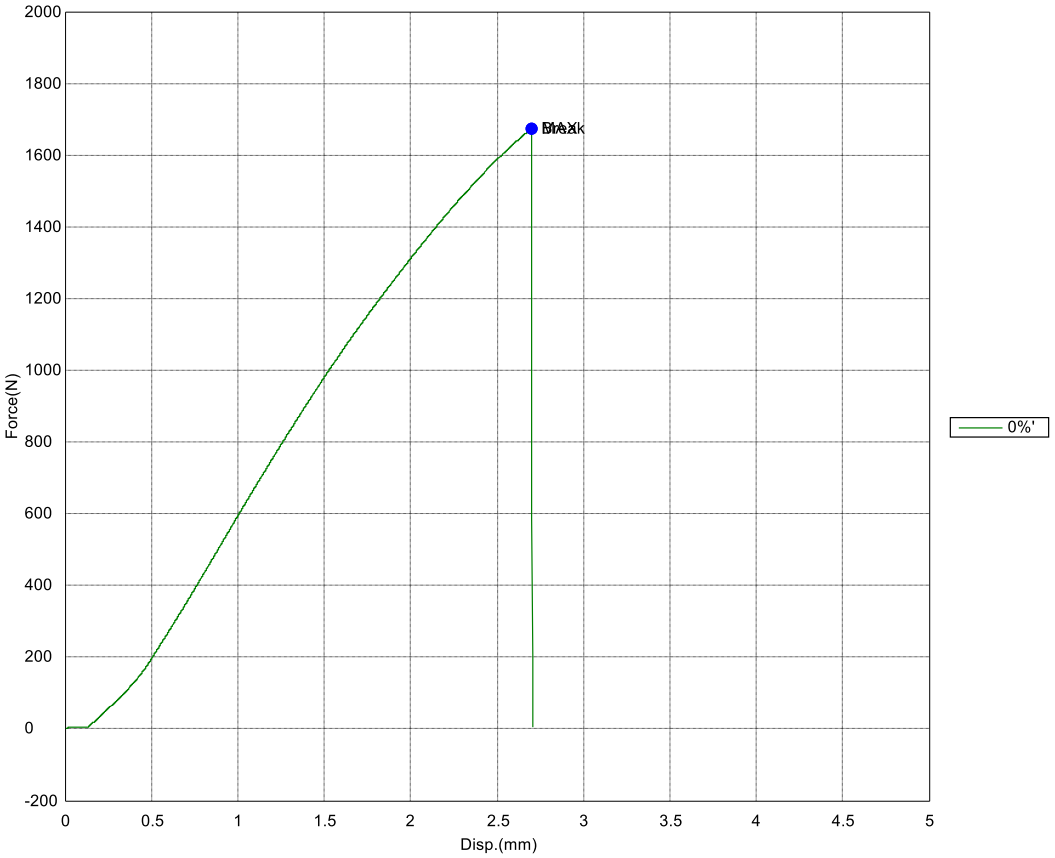
Lampiran 23 Grafik pengujian bending komposit eceng gondok 0.25% (1)



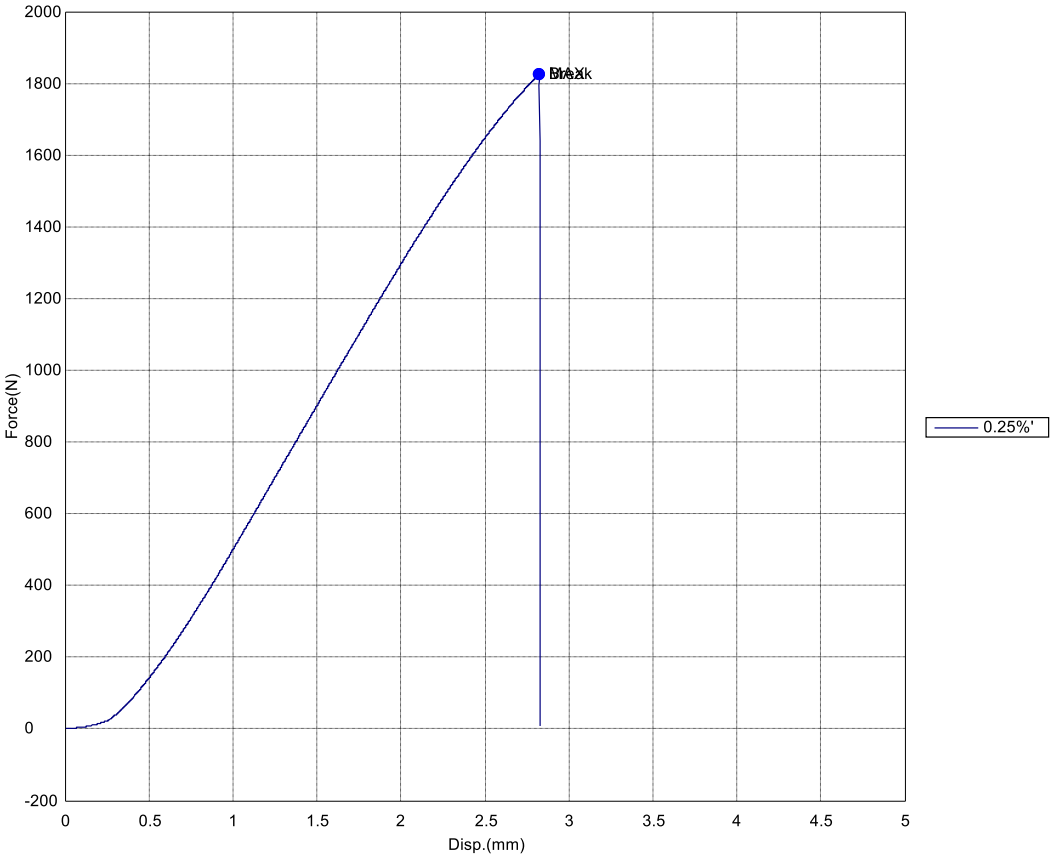
Lampiran 24 Grafik pengujian bending komposit eceng gondok 0.5% (1)



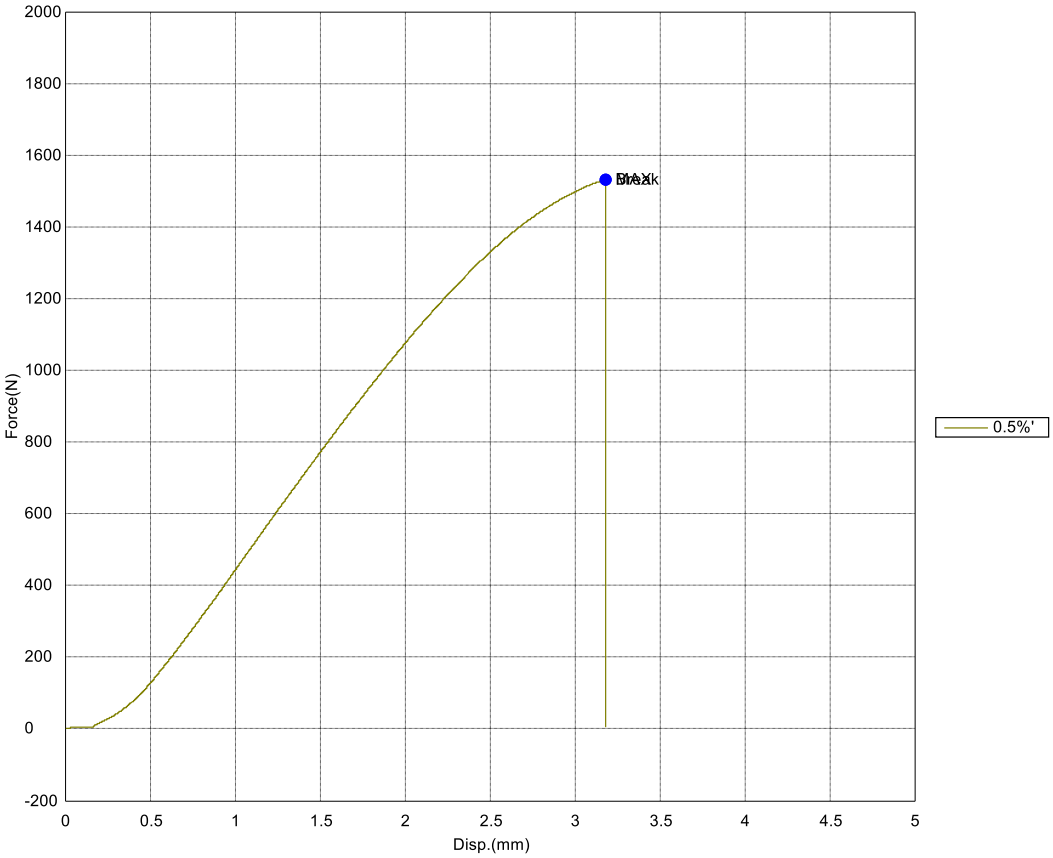
Lampiran 25 Grafik pengujian bending komposit eceng gondok 0% (2)



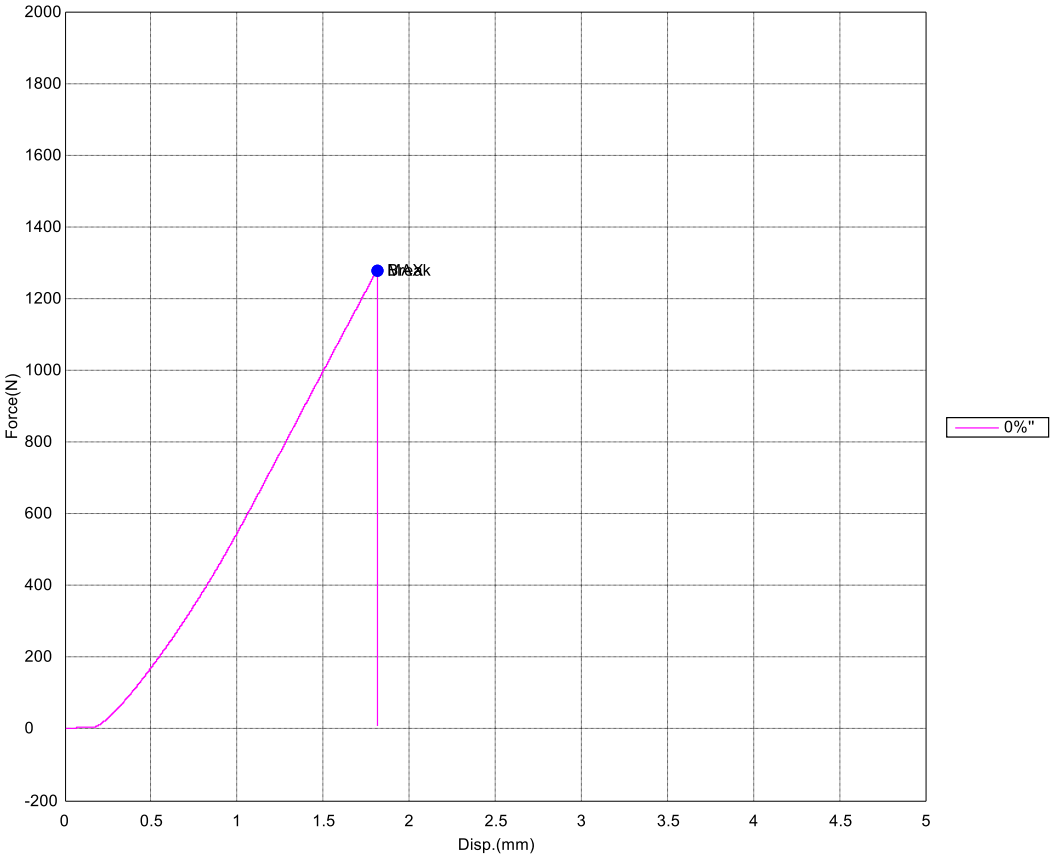
Lampiran 26 Grafik pengujian bending komposit eceng gondok 0.25% (2)



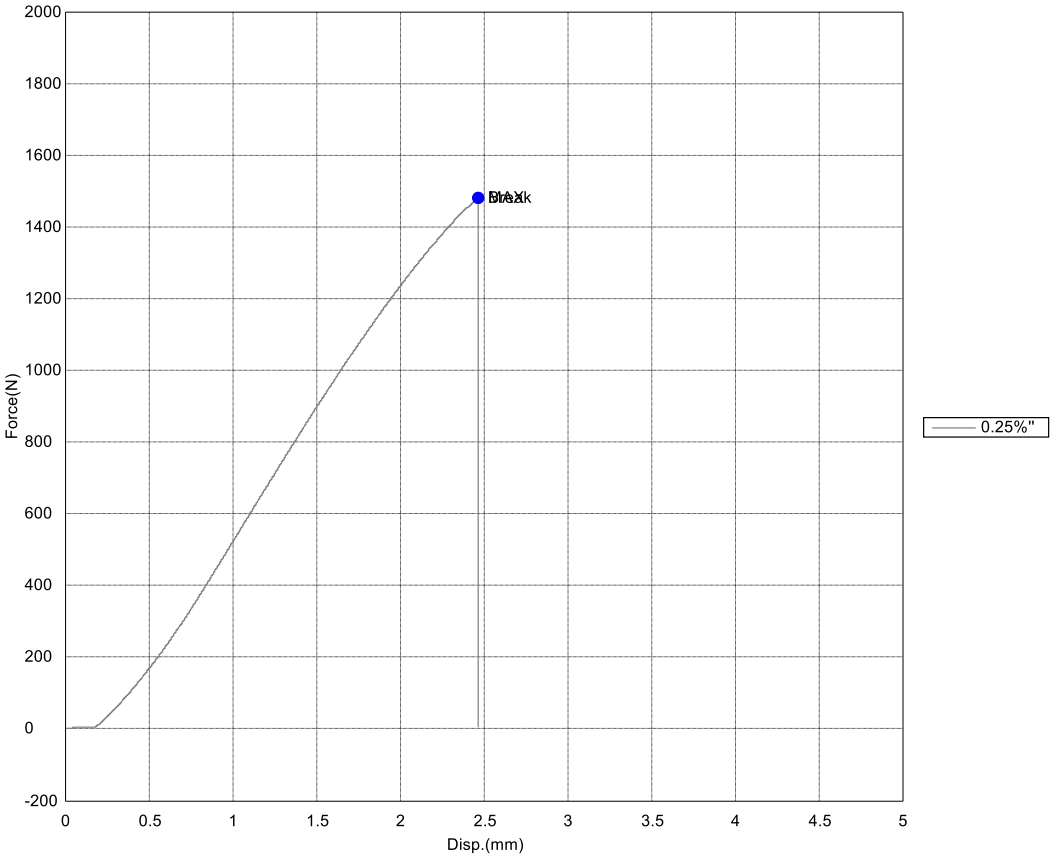
Lampiran 27 Grafik pengujian bending komposit eceng gondok 0.5% (2)



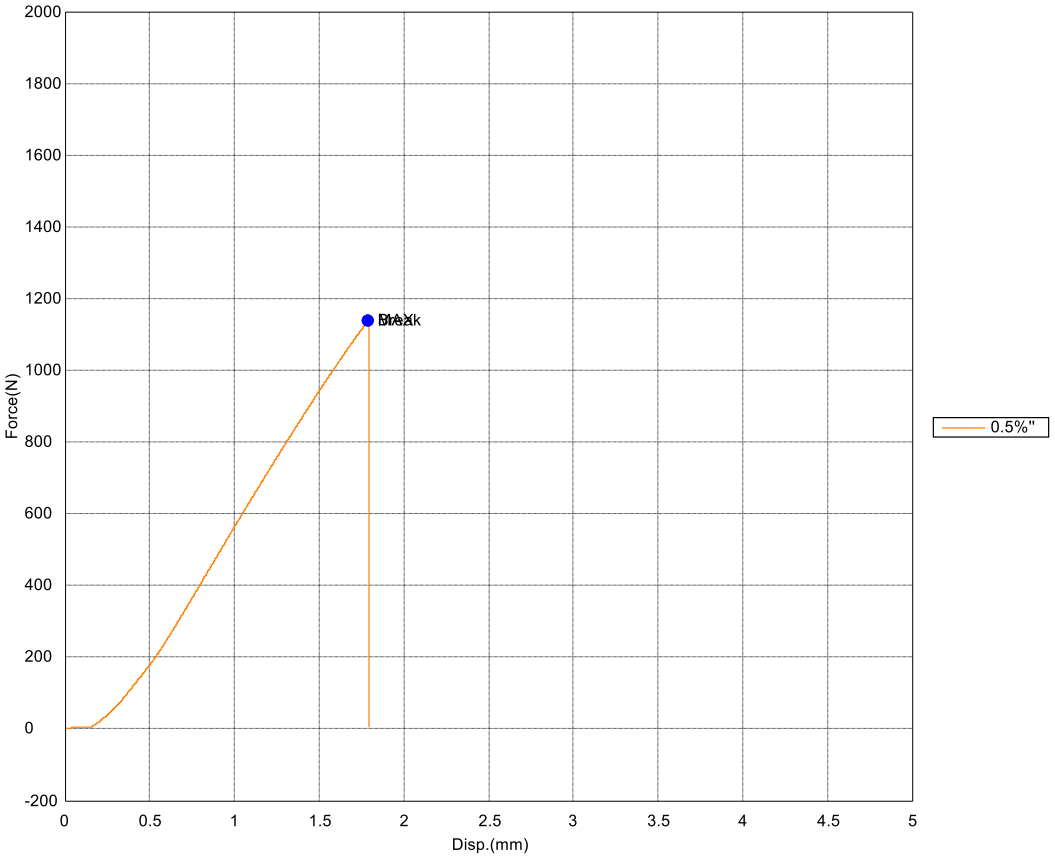
Lampiran 28 Grafik pengujian bending komposit eceng gondok 0% (3)



Lampiran 29 Grafik pengujian bending komposit eceng gondok 0.25% (3)

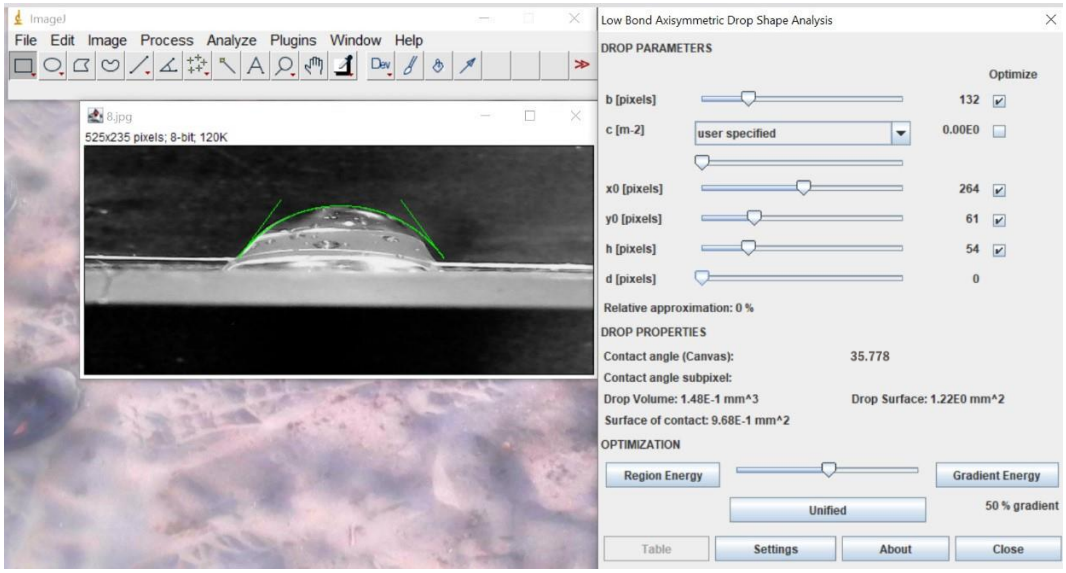


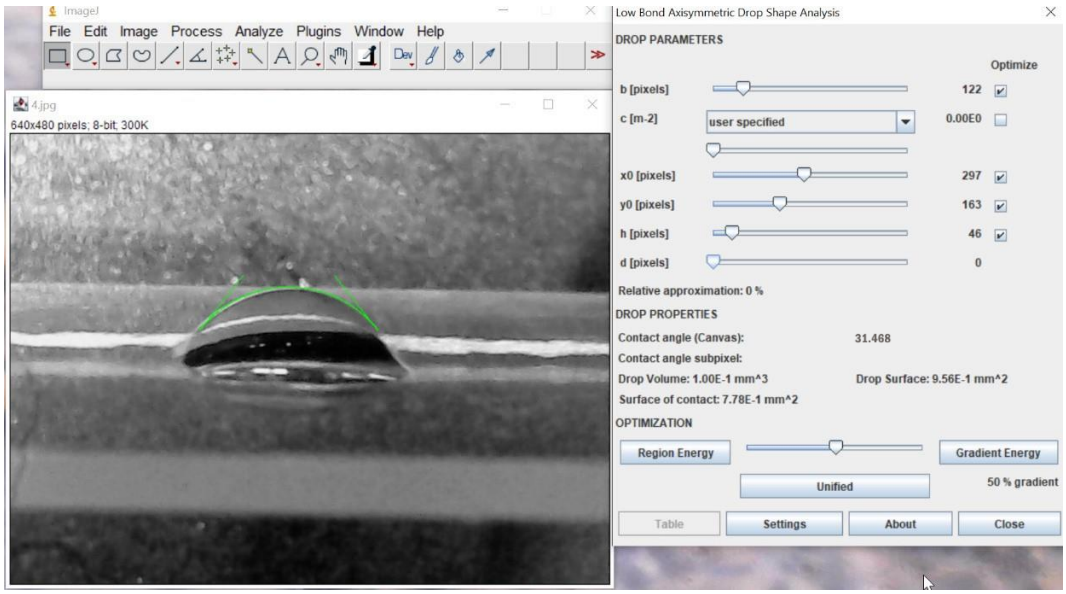
Lampiran 30 Grafik pengujian bending komposit eceng gondok 0.25% (3)

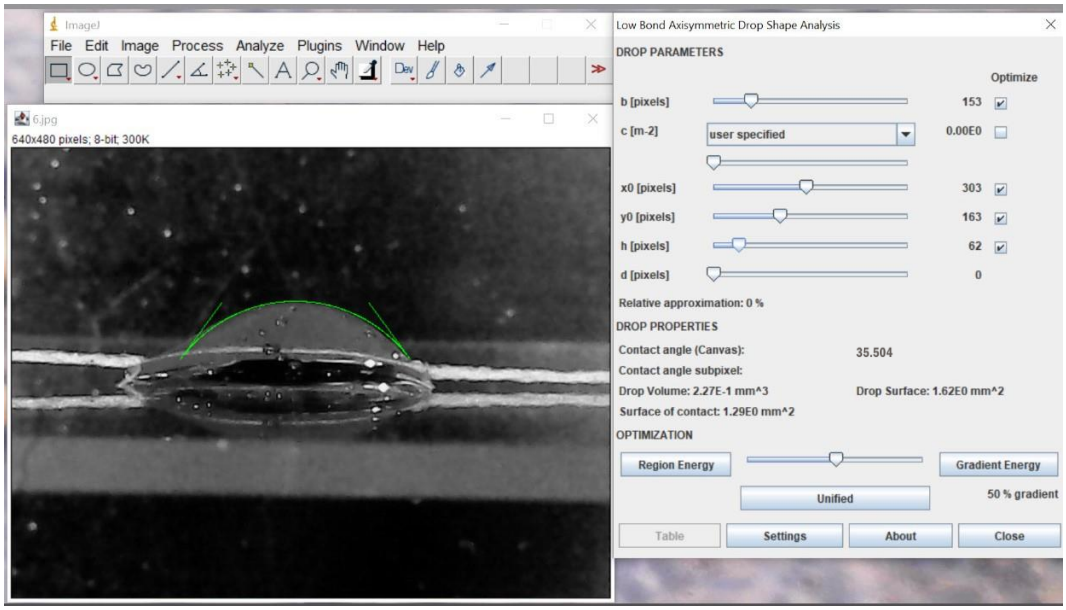


LAMPIRAN B HASIL PENGUJIAN *WETTABILITY*

Lampiran 31 Sudut Kontak *Wettability* Serat 0%






ImageJ
File Edit Image Process Analyze Plugins Window Help
6.jpg
640x480 pixels; 8-bit; 300K
Low Bond Axisymmetric Drop Shape Analysis
DROP PARAMETERS
Optimize
b [pixels] 153
c [m-2] user specified 0.00E0
x0 [pixels] 303
y0 [pixels] 163
h [pixels] 62
d [pixels] 0
Relative approximation: 0 %
DROP PROPERTIES
Contact angle (Canvas): 35.504
Contact angle subpixel:
Drop Volume: 2.27E-1 mm^3
Drop Surface: 1.62E0 mm^2
Surface of contact: 1.29E0 mm^2
OPTIMIZATION
Region Energy
Gradient Energy
Unified
50 % gradient
Table
Settings
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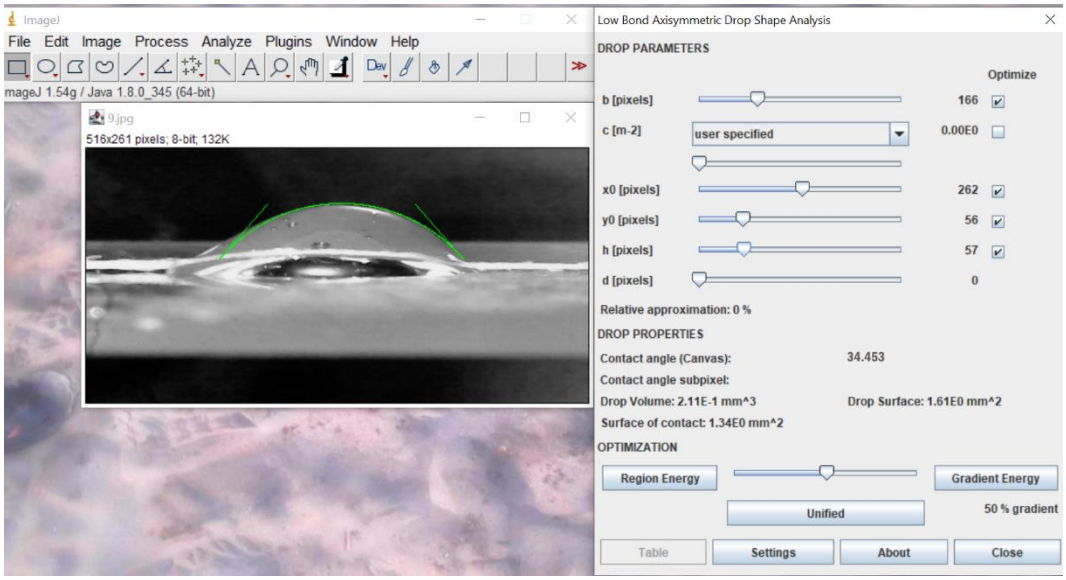
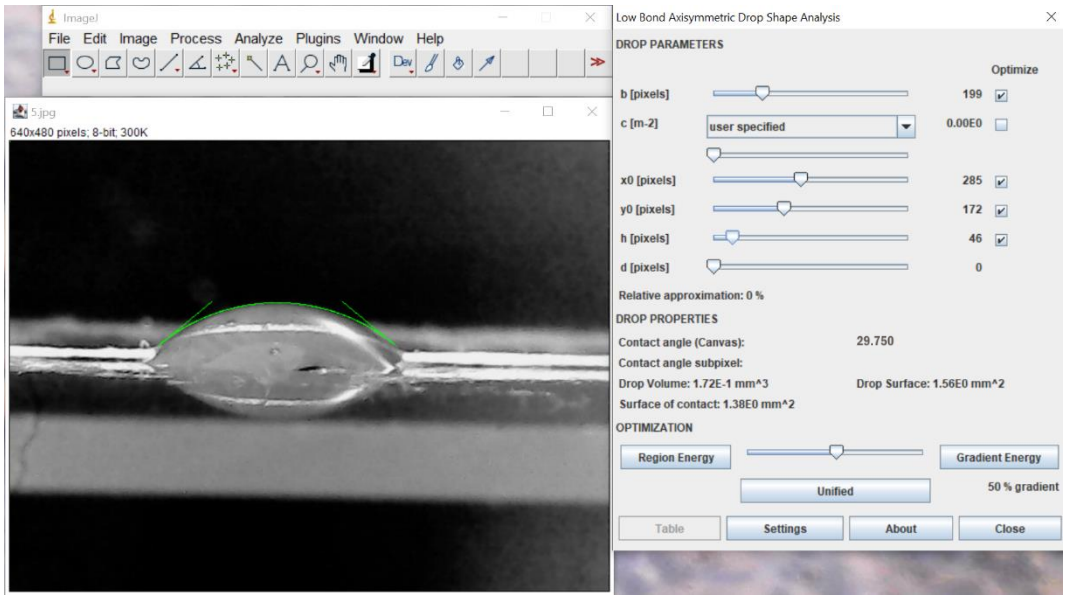
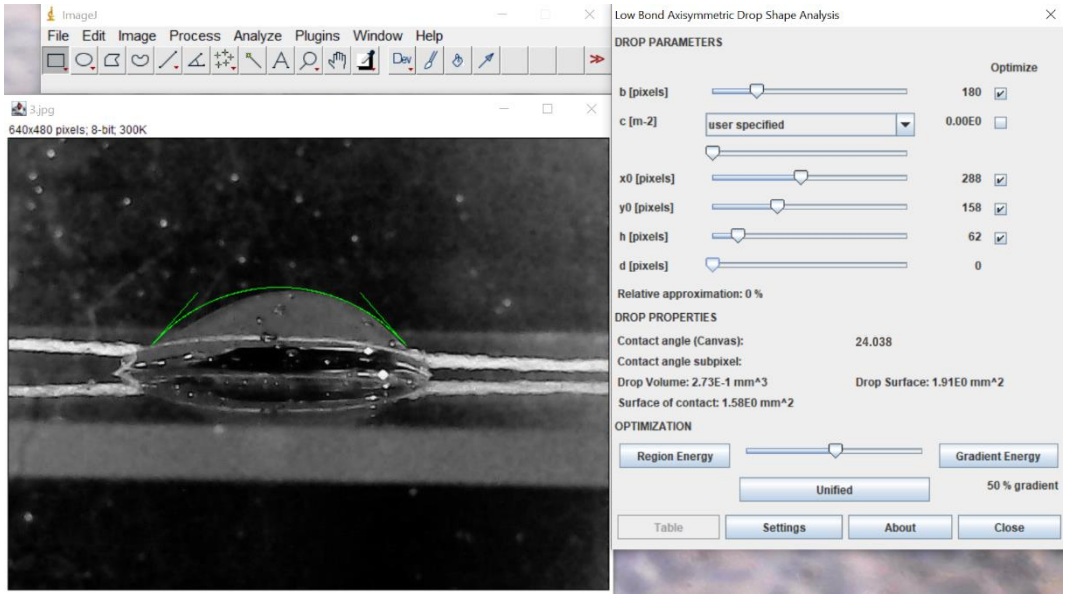
Close

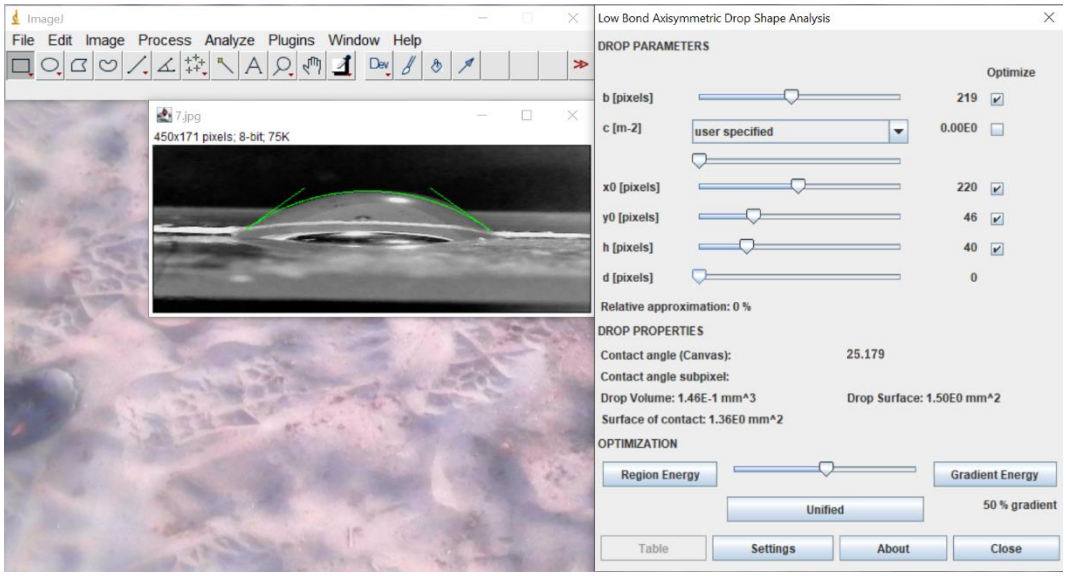
Lampiran 32 Sudut Kontak *Wettability* Serat 0.25%

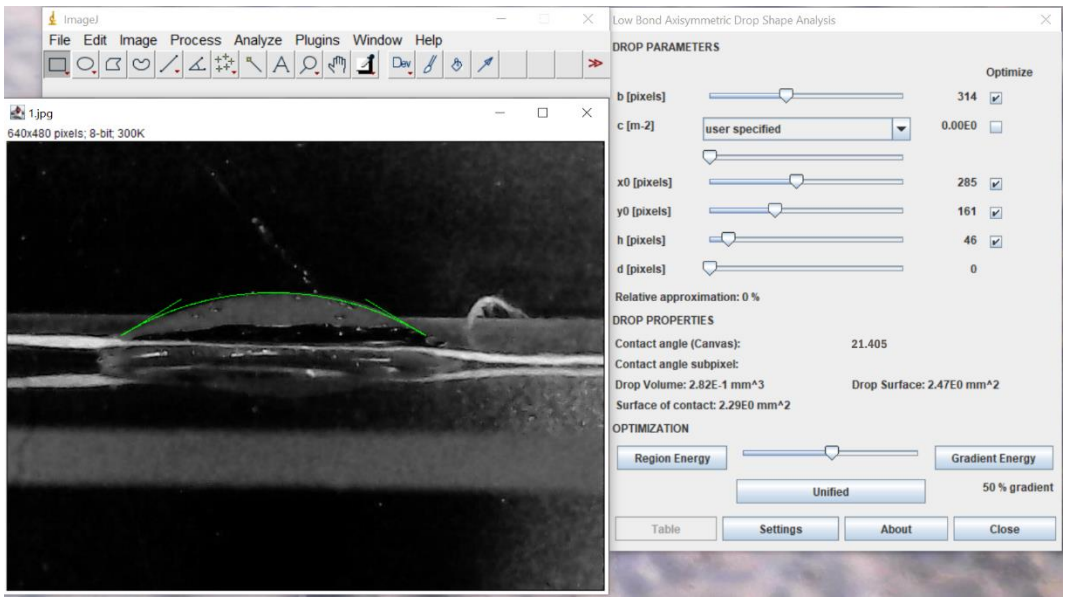


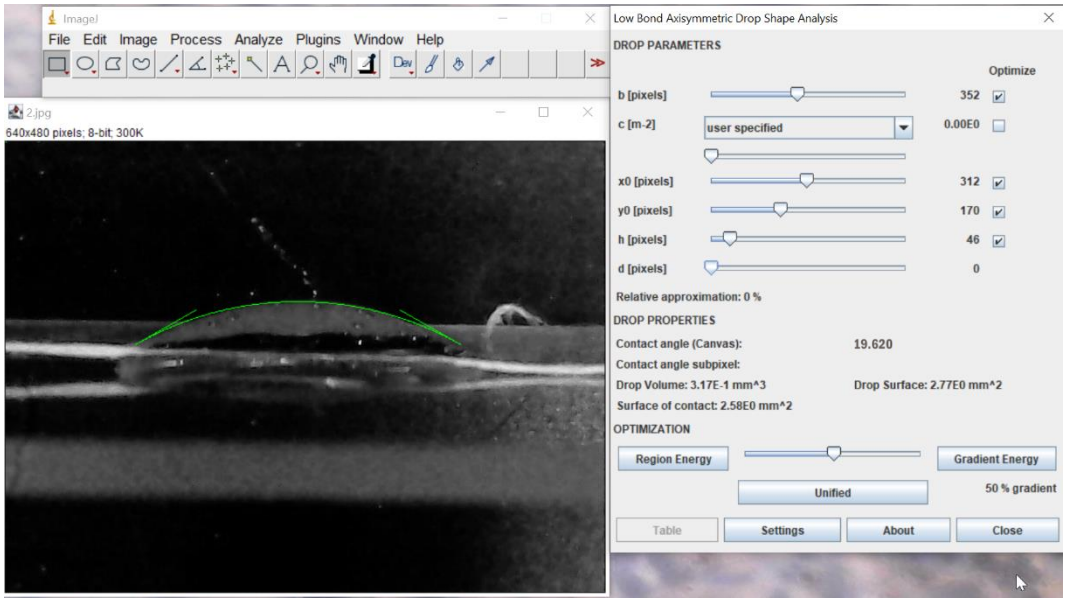



ImageJ
File Edit Image Process Analyze Plugins Window Help
3.jpg
640x480 pixels; 8-bit; 300K
Low Bond Axisymmetric Drop Shape Analysis
DROP PARAMETERS
Optimize
b [pixels] 180
c [m-2] user specified 0.00E0
x0 [pixels] 288
y0 [pixels] 158
h [pixels] 62
d [pixels] 0
Relative approximation: 0 %
DROP PROPERTIES
Contact angle (Canvas): 24.038
Contact angle subpixel:
Drop Volume: 2.73E-1 mm^3
Drop Surface: 1.91E0 mm^2
Surface of contact: 1.58E0 mm^2
OPTIMIZATION
Region Energy
Gradient Energy
Unified
50 % gradient
Table
Settings
About
Close

Lampiran 33 Sudut Kontak *Wettability* Serat 0.5%






ImageJ
File Edit Image Process Analyze Plugins Window Help
2.jpg
640x480 pixels; 8-bit; 300K
Low Bond Axisymmetric Drop Shape Analysis
DROP PARAMETERS
Optimize
b [pixels] 352
c [m-2] user specified 0.00E0
x0 [pixels] 312
y0 [pixels] 170
h [pixels] 46
d [pixels] 0
Relative approximation: 0 %
DROP PROPERTIES
Contact angle (Canvas): 19.620
Contact angle subpixel:
Drop Volume: 3.17E-1 mm^3
Drop Surface: 2.77E0 mm^2
Surface of contact: 2.58E0 mm^2
OPTIMIZATION
Region Energy
Gradient Energy
Unified
50 % gradient
Table
Settings
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LAMPIRAN C DOKUMENTASI PENELITIAN

Lampiran 34 Gambar proses pengambilan data