

# **LAMPIRAN 1**

✚ Tabel distribusi diameter serat membrane hibrid nanofiber

NO	KONSENTRASI			
	0%	3%	10%	15%
1	354	217	197	186
2	306	248	229	132
3	365	236	290	206
4	348	264	216	212
5	378	295	183	234
6	365	262	207	246
7	339	286	282	132
8	424	501	258	106
9	374	460	210	88
10	290	491	149	199
11	311	300	185	194
12	374	195	460	291
13	401	320	265	461
14	348	321	191	206
15	314	280	205	134
16	417	256	278	187
17	373	330	474	177
18	335	307	293	237
19	422	430	287	185
20	382	259	232	158
21	356	252	149	201
22	380	263	550	225
23	334	275	275	179
24	375	267	207	79
25	356	256	252	145
26	414	250	223	186
27	356	275	211	277
28	344	217	299	212
29	407	275	257	197
30	314	398	207	188
31	381	256	241	145
32	301	217	224	202
33	414	264	207	184
34	365	362	420	177
35	365	290	185	343
36	375	279	182	158
37	375	262	211	121
38	400	283	216	88
39	399	311	234	112
40	391	264	382	243
41	334	255	260	153
42	458	256	191	233
43	408	250	168	183

<b>44</b>	367	311	207	137
<b>45</b>	408	275	234	183
<b>46</b>	398	311	237	83
<b>47</b>	348	317	223	71
<b>48</b>	356	256	210	166
<b>49</b>	401	176	171	187
<b>50</b>	423	212	229	196
<b>51</b>	348	229	216	112
<b>52</b>	419	333	263	177
<b>53</b>	290	278	211	289
<b>54</b>	396	264	223	118
<b>55</b>	340	196	241	132
<b>56</b>	396	274	257	173
<b>57</b>	373	237	207	233
<b>58</b>	406	262	185	348
<b>59</b>	368	317	149	121
<b>60</b>	333	290	229	92
<b>61</b>	364	252	283	199
<b>62</b>	365	278	222	158
<b>63</b>	375	290	265	325
<b>64</b>	319	194	183	167
<b>65</b>	365	256	232	179
<b>66</b>	317	224	280	172
<b>67</b>	348	278	265	136
<b>68</b>	333	224	159	141
<b>69</b>	408	295	197	169
<b>70</b>	367	334	171	212
<b>71</b>	391	256	211	80
<b>72</b>	382	307	176	96
<b>73</b>	331	250	141	142
<b>74</b>	389	189	244	214
<b>75</b>	367	241	226	196
<b>76</b>	334	299	234	125
<b>77</b>	398	310	197	167
<b>78</b>	361	289	241	201
<b>79</b>	365	207	275	185
<b>80</b>	348	200	226	118
<b>81</b>	361	338	207	214
<b>82</b>	354	485	223	106
<b>83</b>	317	260	275	211
<b>84</b>	334	283	252	237
<b>85</b>	356	262	471	197
<b>86</b>	410	252	191	233
<b>87</b>	373	463	216	159
<b>88</b>	378	538	166	172
<b>89</b>	356	308	448	211
<b>90</b>	398	241	273	177

<b>91</b>	334	293	257	206
<b>92</b>	356	297	244	216
<b>93</b>	435	328	205	53
<b>94</b>	317	211	267	247
<b>95</b>	344	252	278	135
<b>96</b>	334	282	232	181
<b>97</b>	336	404	270	175
<b>98</b>	356	310	259	185
<b>99</b>	393	236	252	198
<b>100</b>	373	315	267	98
<b>Rata-Rata =</b>	366	286	242	180
Standar Deviasi	33,534447	68,146437	70,839734	62,957581

## **LAMPIRAN 2**

✚ Tabel Data Pengujian Tarik

No	Sampel	Ketebalan Membran a0 (mm)	Tebal Rata-Rata	b0 (mm)	Fmax (N)	Tensil Strength (Mpa)	Rata-rata Tensile Strength (Mpa)	Standar Deviasi Tegangan	Regangan	Rata-Rata Regangan	Standar Deviasi Regangan	Modulus Elastisitas (Mpa)	Rata-Rata Modulus (Mpa)	Standar Deviasi Regangan
1	0%	0,09028	0,098	10	2,2249	2,4644	2,85	0,60	206,2700	200,44	35,47	8,00	7,59	0,81
2	0%	0,09169		10	2,8283	3,0846			209,7568			8,16		
3	0%	0,108		10	3,4933	3,4933			242,6377			7,41		
4	0%	0,09693		10	3,1031	3,2013			199,0438			8,11		
5	0%	0,1035		10	2,076	2,0058			144,5012			6,25		
6	3%	0,09693	0,094	10	2,1097	2,1766	2,30	0,22	190,9691	169,25	38,82	6,00	6,50	2,28
7	3%	0,09254		10	2,1665	2,1665			155,8633			5		
8	3%	0,09473		10	2,2922	2,2922			126,5836			5,41		
9	3%	0,09032		10	2,6821	2,6821			224,9285			10,53		
10	3%	0,09693		10	2,172	2,172			147,9087			5,56		
11	10%	0,04846	0,050	10	2,4639	5,0843	4,70	0,49	146,2979	148,17	32,95	13,70	13,57	2,53
12	10%	0,05507		10	2,5511	4,6324			99,4222			9,38		
13	10%	0,04957		10	2,404	4,8497			138,2198			14,29		
14	10%	0,04957		10	2,5097	5,0629			174,6691			14,29		
15	10%	0,04957		10	1,9274	3,8883			182,2533			16,22		
16	15%	0,05507	0,058	10	3,7086	6,7344	5,49	1,05	153,7767	127,89	30,64	16,13	17,91	9,31
17	15%	0,06609		10	4,0813	6,1753			167,1416			16,30		
18	15%	0,06058		10	2,5176	4,1559			111,3643			8,00		
19	15%	0,05287		10	2,9836	5,6434			96,9108			33,33		
20	15%	0,05507		10	2,6145	4,7477			110,2587			15,79		

## **LAMPIRAN 3**

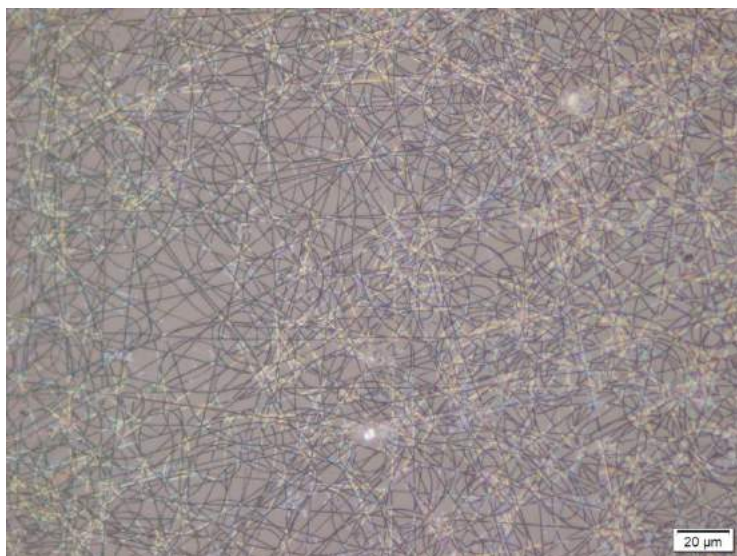
**✚ Gambar hasil optimasi parameter proses electrospinning**



**Tegangan 10 kV dan Jarak Jarum ke Kolektor (TCD) 10 cm**



**Tegangan 12,5 kV dan Jarak Jarum ke Kolektor (TCD) 12 cm**

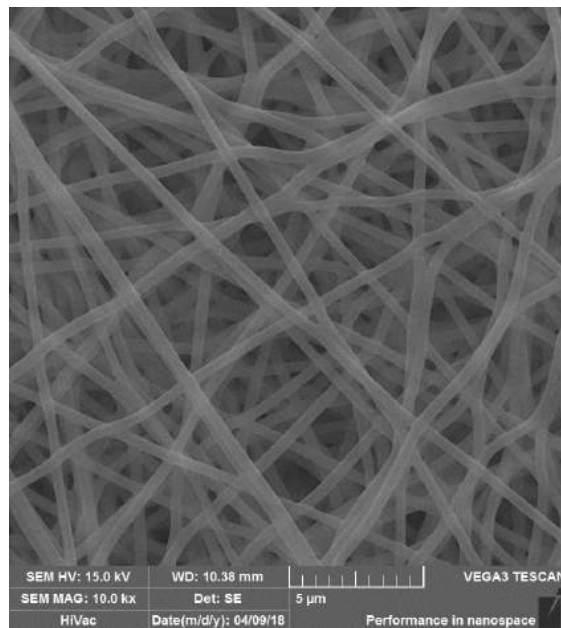
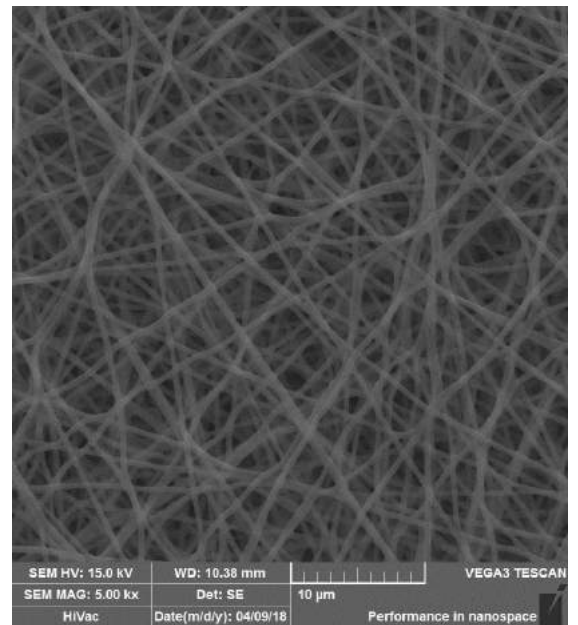
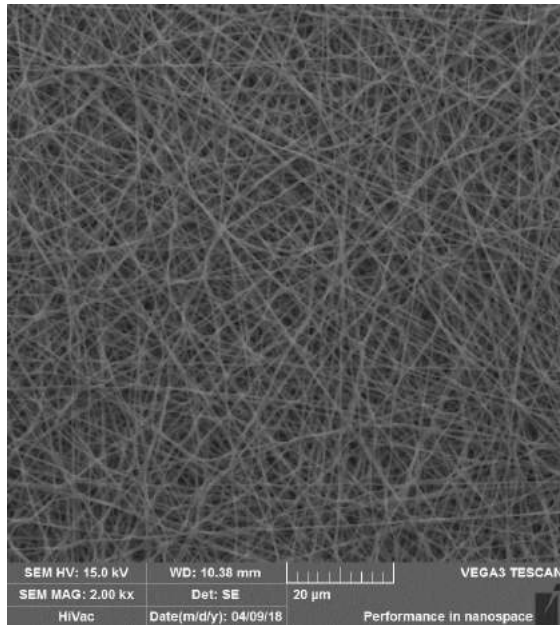


**Tegangan 15 kV dan Jarak Jarum ke Kolektor (TCD) 16,5 cm**

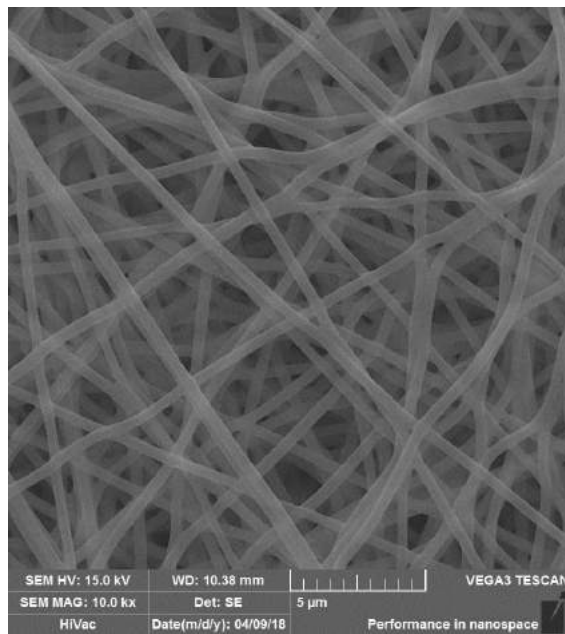
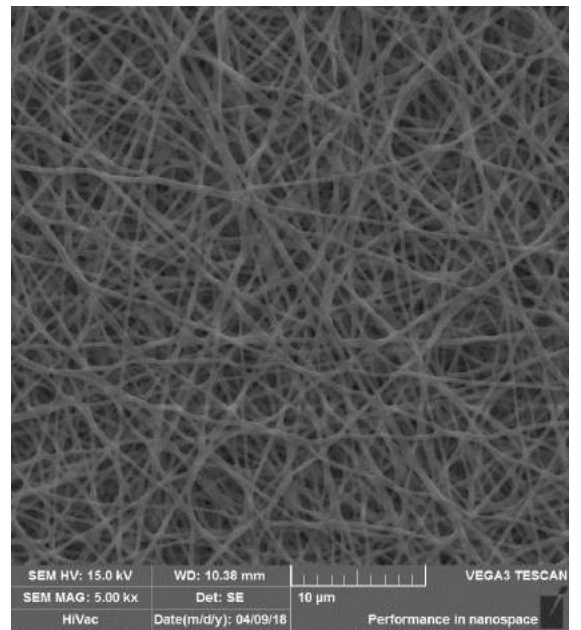
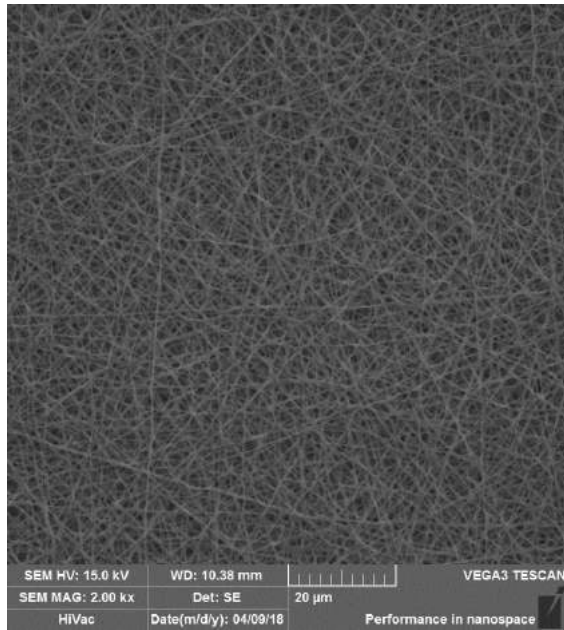


## **LAMPIRAN 4**

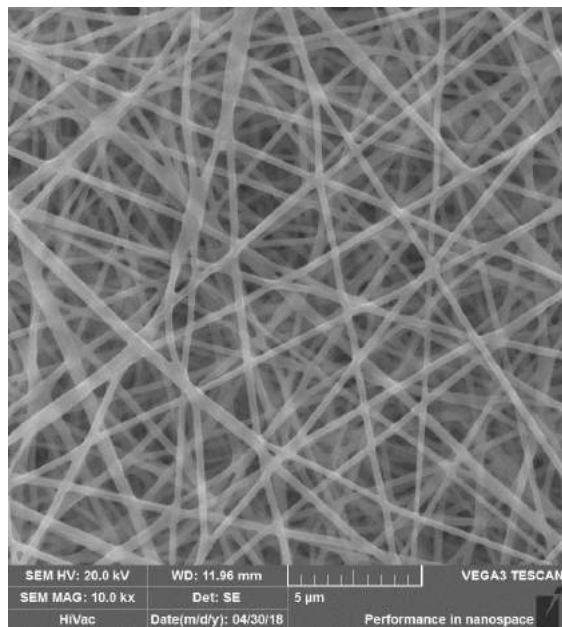
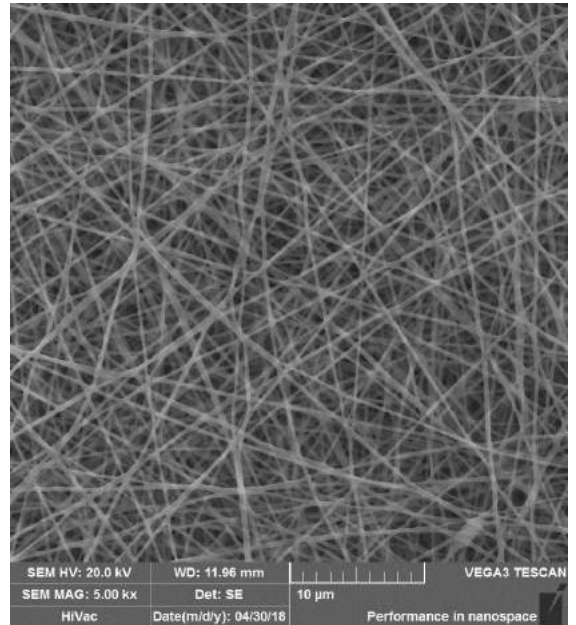
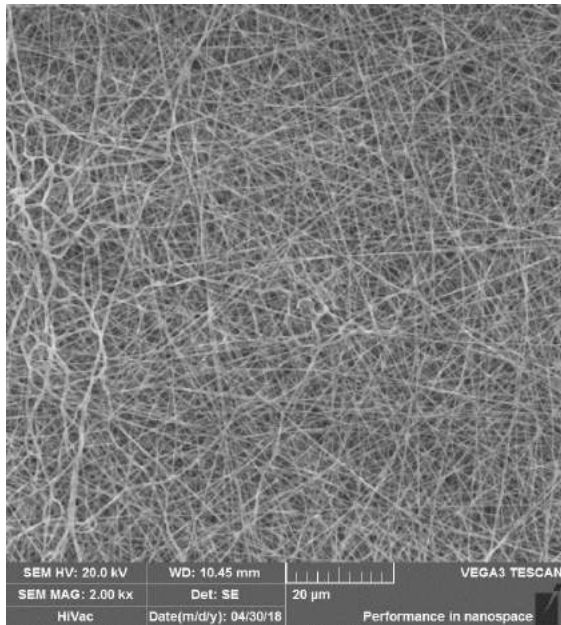
✚ Gambar hasil citra *Scanning Electron Microscope* (SEM) membrane konsentrasi 0%



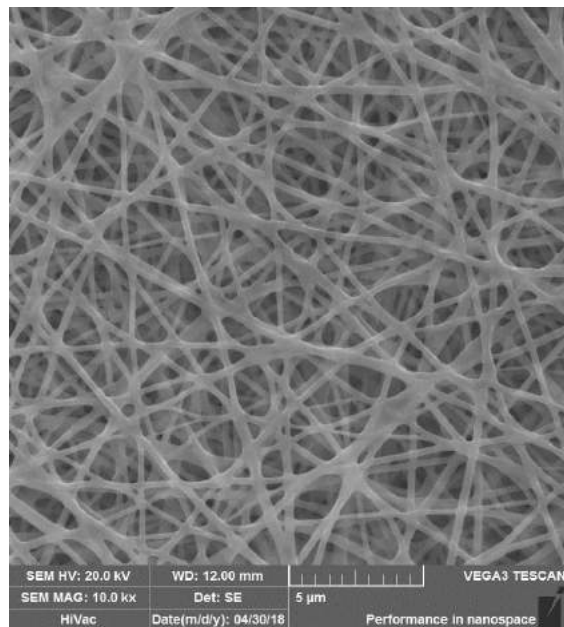
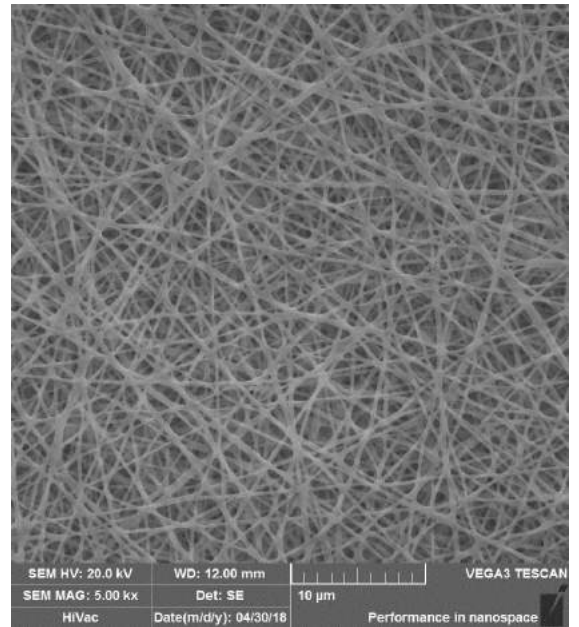
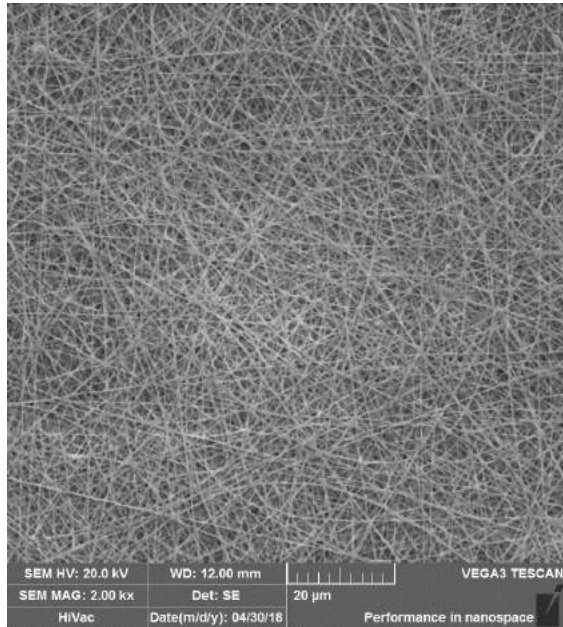
✚ Gambar hasil citra *Scanning Electron Microscope* (SEM) membrane konsentrasi 3%



✚ Gambar hasil citra *Scanning Electron Microscope* (SEM) membrane konsentrasi 10%



✚ Gambar hasil citra *Scanning Electron Microscope* (SEM) membrane konsentrasi 15%



## **LAMPIRAN 5**

644/PS/05/18

17.05.2018

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Universitas Gadjah Mada**

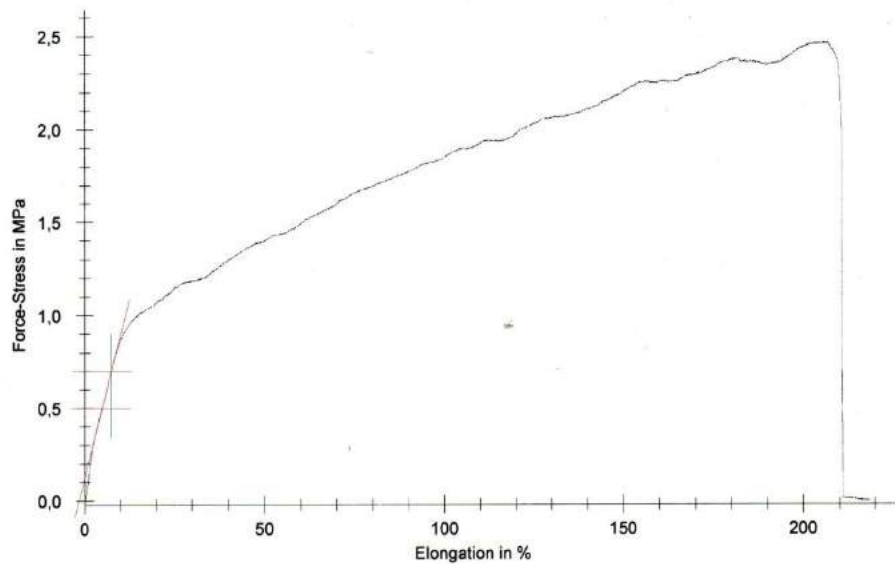
**Parameter table:**

Company name : 644/PS/05/18                      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah                  Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
1	0,09028	10	20	2,2249	2,4644	206,2700

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,09028	10	20	2,2249	2,4644	206,2700
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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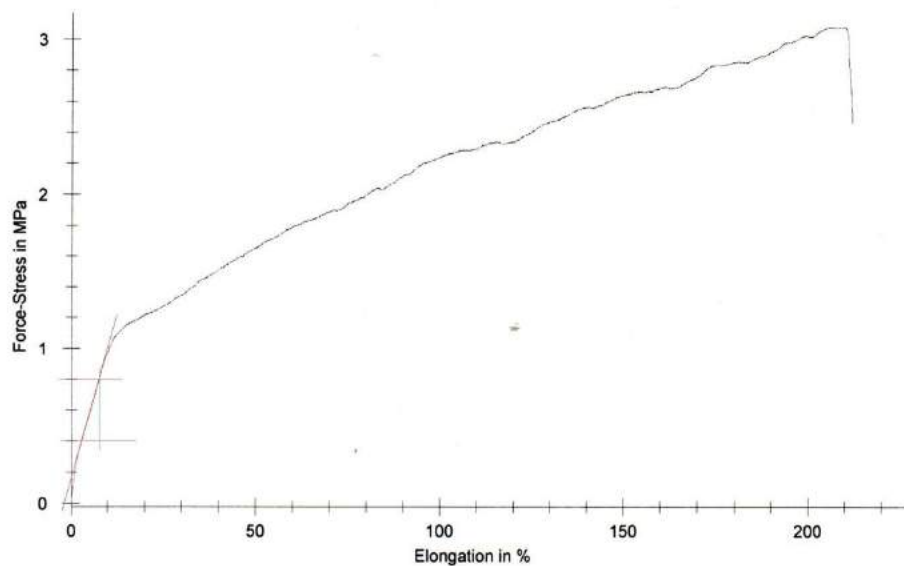
**Parameter table:**

Company name: 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
2	0,09169	10	20	2,8283	3,0846	209,7568

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,09169	10	20	2,8283	3,0846	209,7568
s	-	-	-	-	-	-
v	-	-	-	-	-	-



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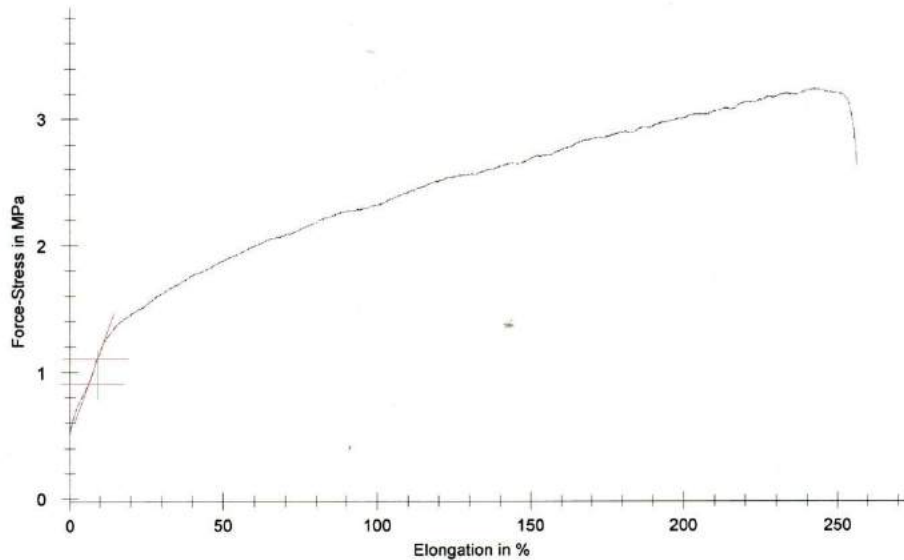
**Parameter table:**

Company name: 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatihah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
3	0,108	10	20	3,4933	3,2360	242,6377

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,108	10	20	3,4933	3,2360	242,6377
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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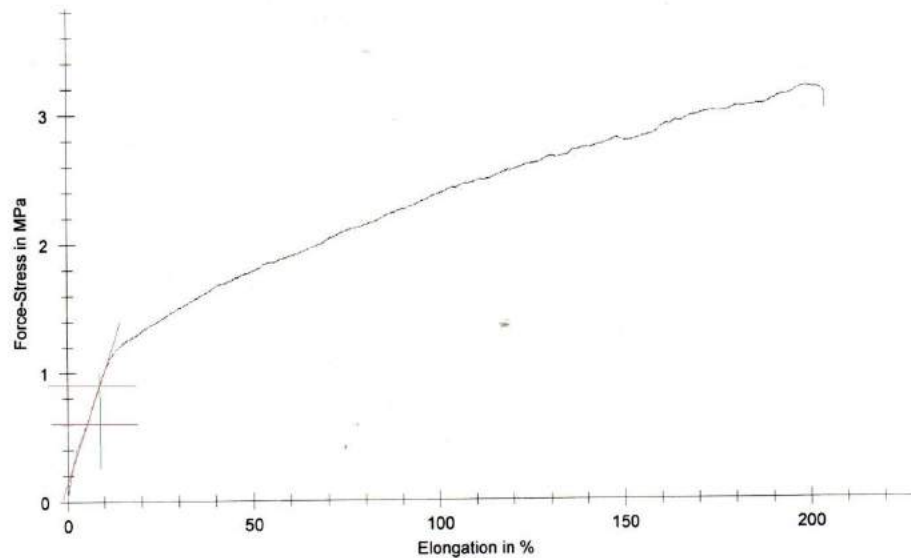
**Parameter table:**

Company name : 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatihah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
4	0,09693	10	20	3,1031	3,2013	199,0438

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
$\bar{x}$	0,09693	10	20	3,1031	3,2013	199,0438
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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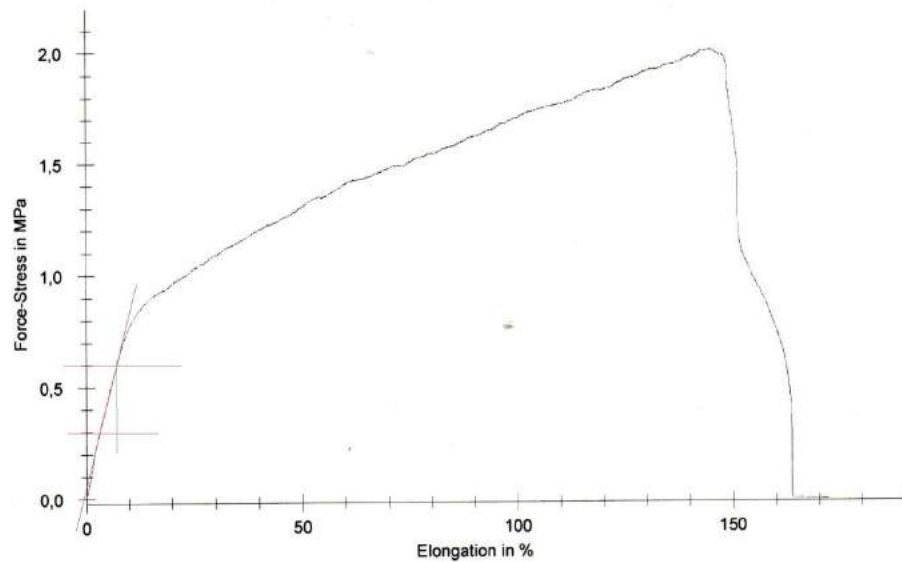
### Parameter table:

Company name: 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
5	0,1035	10	20	2,0760	2,0058	144,5012

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,1035	10	20	2,0760	2,0058	144,5012
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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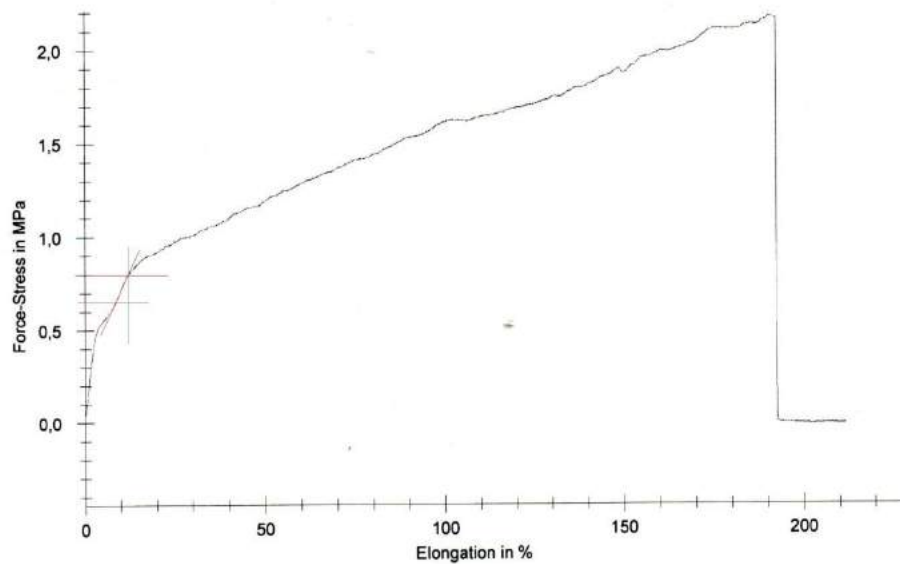
**Parameter table:**

Company name : 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
1	0,09693	10	20	2,1097	2,1766	190,9691

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,09693	10	20	2,1097	2,1766	190,9691
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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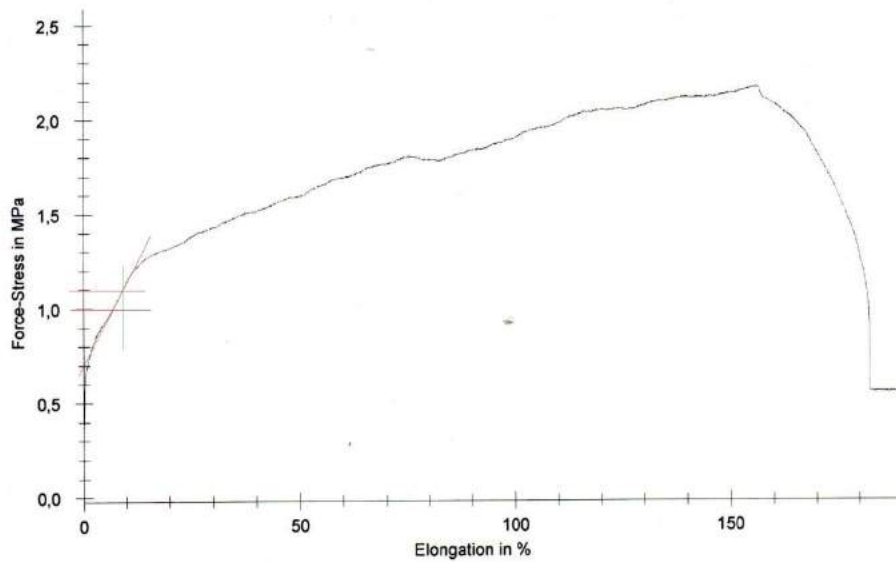
**Parameter table:**

Company name: 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatihah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
2	0,09254	10	20	2,0049	2,1665	155,8633

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,09254	10	20	2,0049	2,1665	155,8633
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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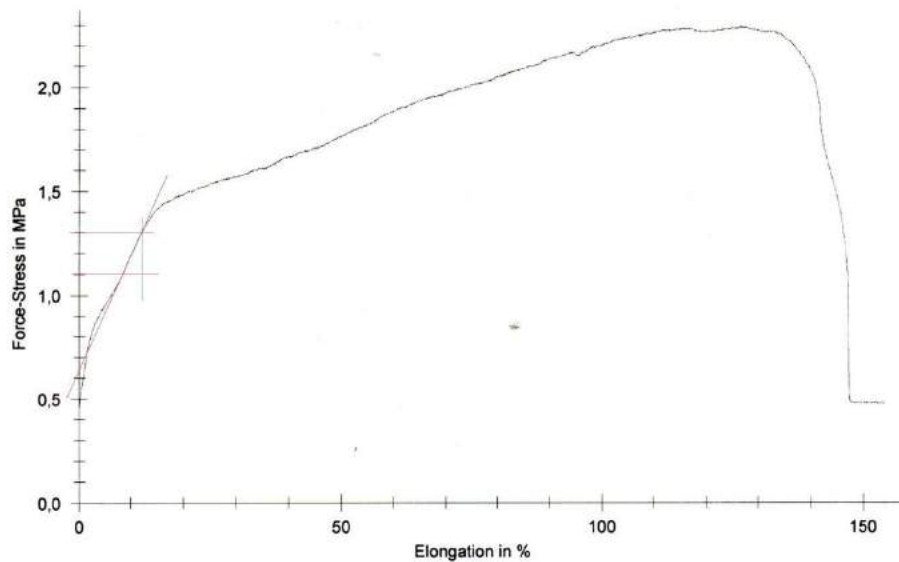
**Parameter table:**

Company name: 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
3	0,09473	10	20	2,1714	2,2922	126,5836

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
$\bar{x}$	0,09473	10	20	2,1714	2,2922	126,5836
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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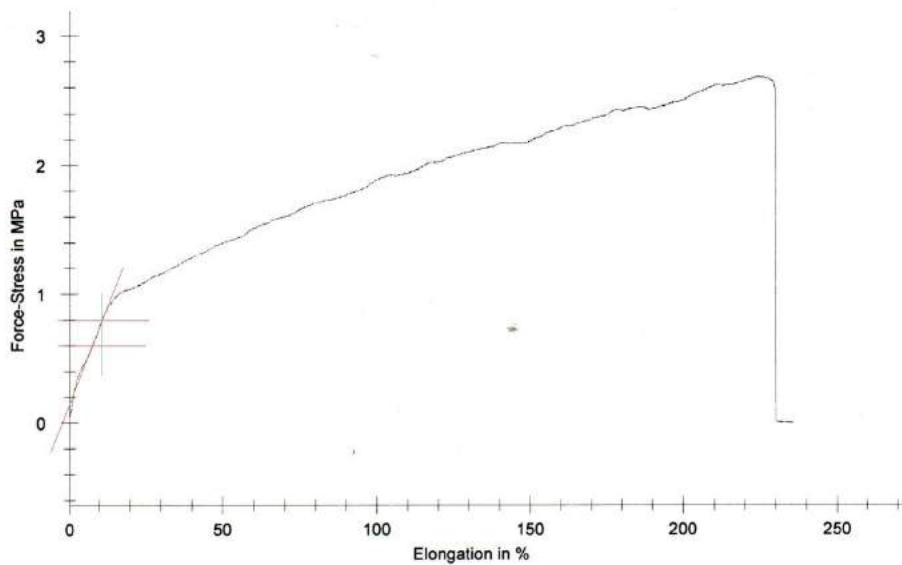
### Parameter table:

Company name :	644/PS/05/18	Test standard :	Tensile strength
Customer :	Wahyu Nur Fatimah	Material :	AV/PVA/Kitosan
Tester :	Rachmat		
Test speed :	10 mm/min		

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
4	0,09032	10	20	2,4225	2,6821	224,9285

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,09032	10	20	2,4225	2,6821	224,9285
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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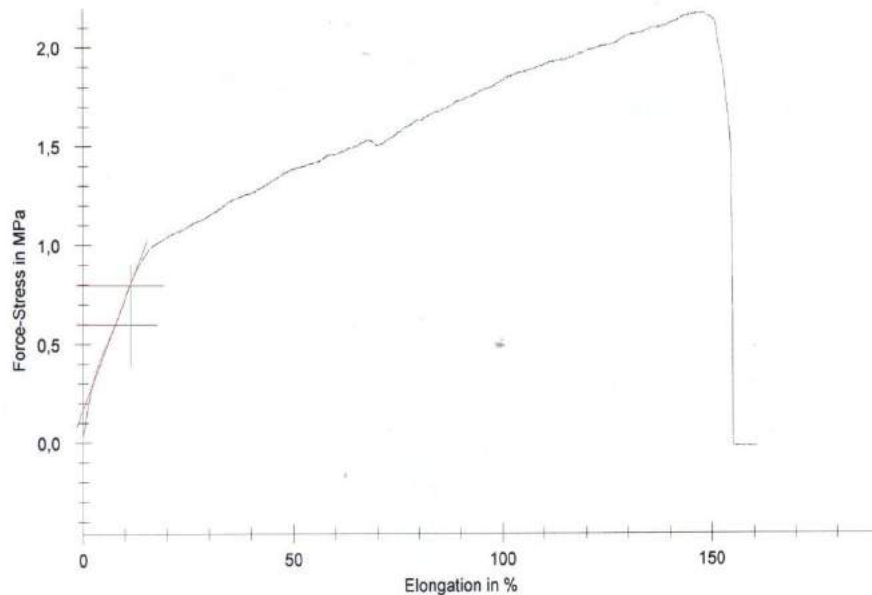
### Parameter table:

Company name : 644/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan  
 Tester : Rachmat  
 Test speed: 10 mm/min

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
5	0,09693	10	20	2,1053	2,1720	147,9087

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,09693	10	20	2,1053	2,1720	147,9087
s	-	-	-	-	-	-
v	-	-	-	-	-	-



✚ Hasil uji tarik konsentrasi 10%

688/PS/05/18

25.05.2018

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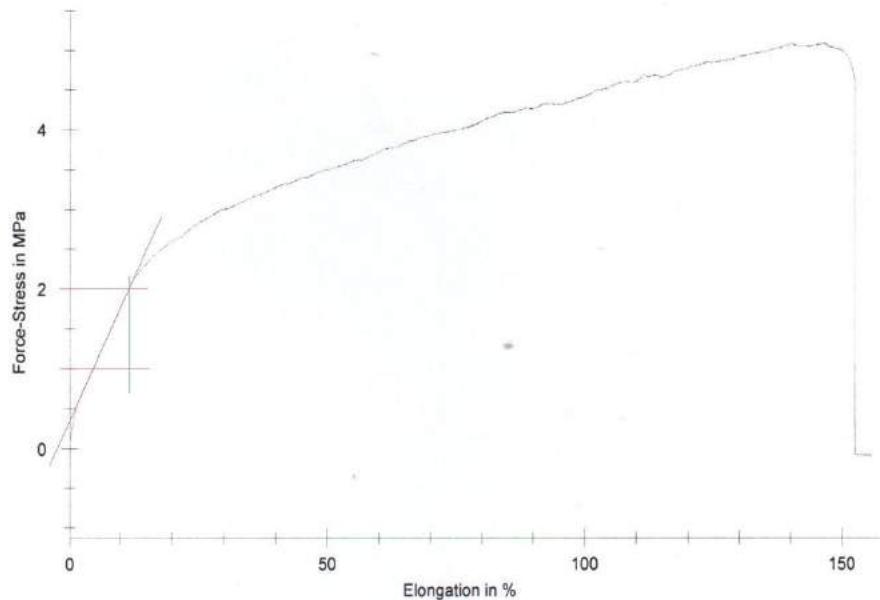
**Parameter table:**

Company name: 688/PS/05/18      Test standard : Tensile strength  
Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan 10%  
Tester : Rachmat  
Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
1	0,04846	10	20	2,4639	5,0843	146,2979

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,04846	10	20	2,4639	5,0843	146,2979
s	-	-	-	-	-	-
v	-	-	-	-	-	-

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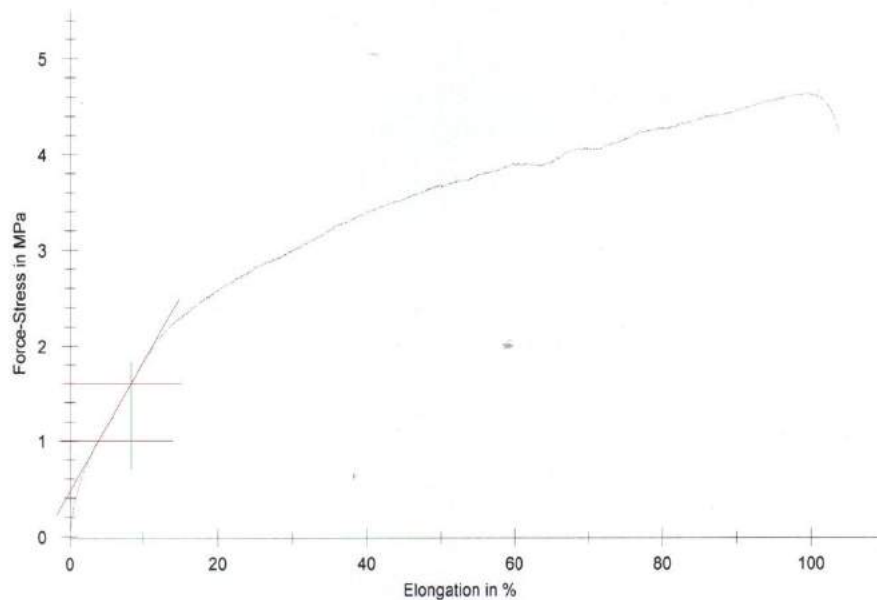
### Parameter table:

Company name: 688/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan 10%  
 Tester : Rachmat  
 Test speed: 10 mm/min

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
2	0,05507	10	20	2,5511	4,6324	99,4222

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,05507	10	20	2,5511	4,6324	99,4222
s	-	-	-	-	-	-
v	-	-	-	-	-	-

## Fakultas Teknologi Pertanian Universitas Gadjah Mada

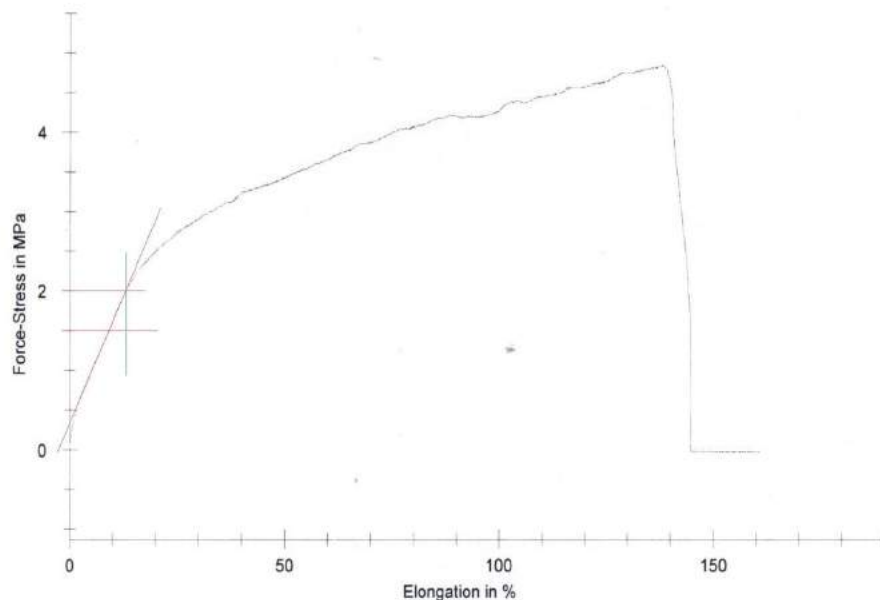
### Parameter table:

Company name: 688/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatihah      Material : AV/PVA/Kitosan 10%  
 Tester : Rachmat  
 Test speed: 10 mm/min

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
3	0,04957	10	20	2,4040	4,8497	138,2198

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
$\bar{x}$	0,04957	10	20	2,4040	4,8497	138,2198
s	-	-	-	-	-	-
v	-	-	-	-	-	-

## Fakultas Teknologi Pertanian Universitas Gadjah Mada

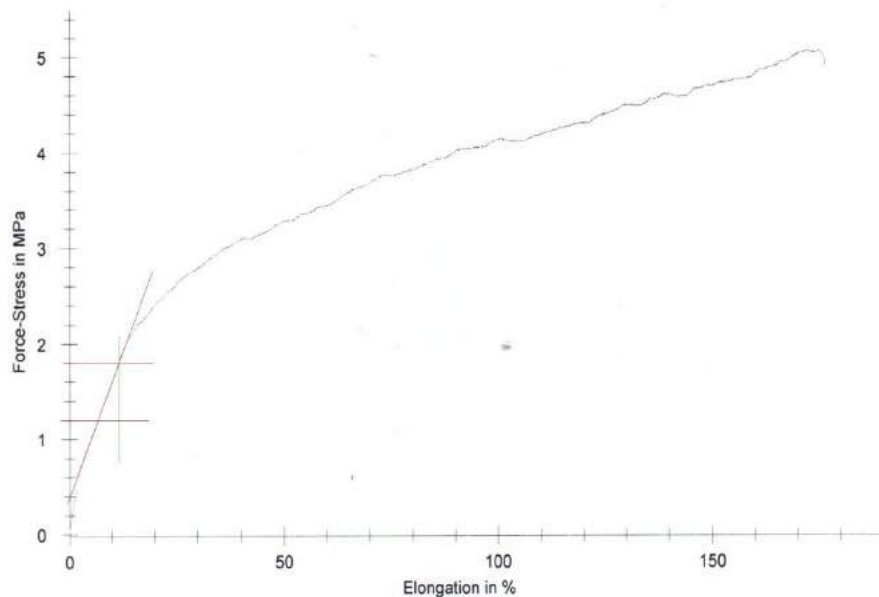
### Parameter table:

Company name: 688/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatihah      Material : AV/PVA/Kitosan 10%  
 Tester : Rachmat  
 Test speed: 10 mm/min

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
4	0,04957	10	20	2,5097	5,0629	174,6691

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,04957	10	20	2,5097	5,0629	174,6691
s	-	-	-	-	-	-
v	-	-	-	-	-	-

## Fakultas Teknologi Pertanian Universitas Gadjah Mada

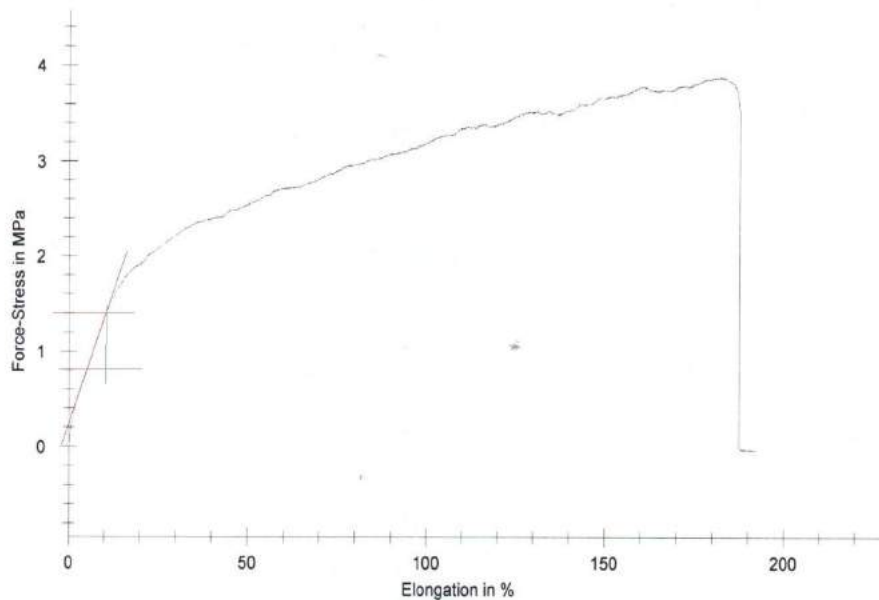
### Parameter table:

Company name: 688/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan 10%  
 Tester : Rachmat  
 Test speed: 10 mm/min

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
5	0,04957	10	20	1,9274	3,8883	182,2533

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,04957	10	20	1,9274	3,8883	182,2533
s	-	-	-	-	-	-
v	-	-	-	-	-	-

## Hasil uji tarik konsentrasi 15%

688/PS/05/18

25.05.2018

### Fakultas Teknologi Pertanian Universitas Gadjah Mada

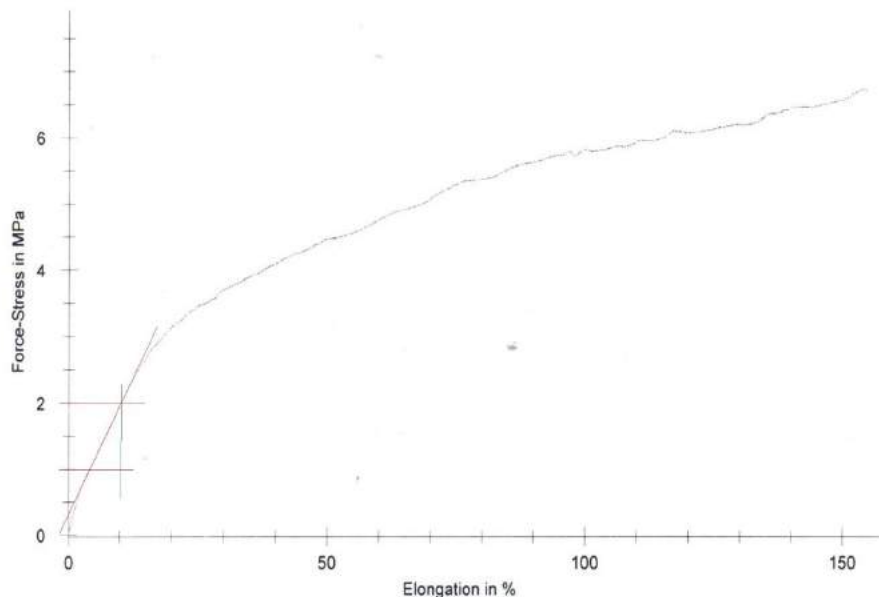
#### Parameter table:

Company name: 688/PS/05/18      Test standard : Tensile strength  
Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan 15%  
Tester : Rachmat  
Test speed: 10 mm/min

#### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
7	0,05507	10	20	3,7086	6,7344	153,7767

#### Series graphics:



#### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,05507	10	20	3,7086	6,7344	153,7767
s	-	-	-	-	-	-
v	-	-	-	-	-	-

## Fakultas Teknologi Pertanian Universitas Gadjah Mada

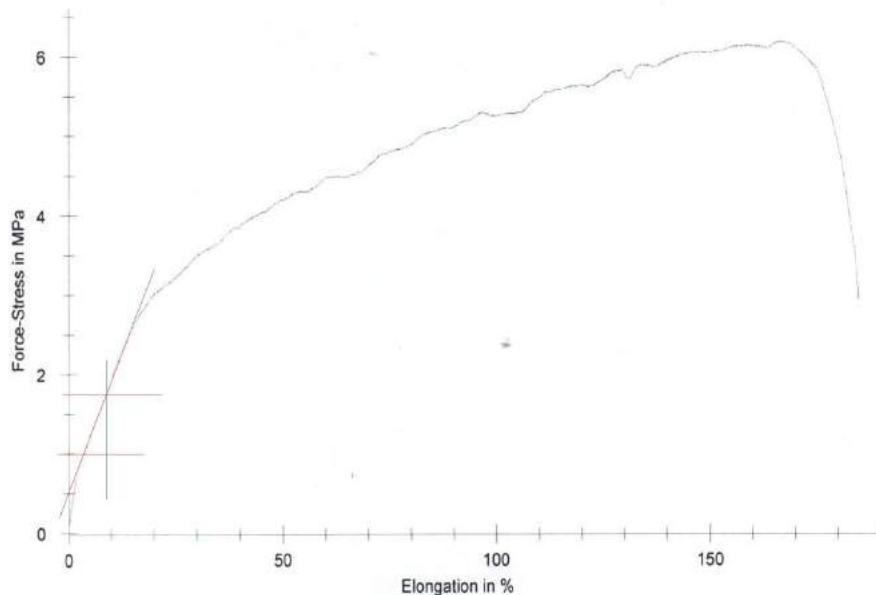
### Parameter table:

Company name: 688/PS/05/18      Test standard : Tensile strength  
 Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan 15%  
 Tester : Rachmat  
 Test speed: 10 mm/min

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
9	0,06609	10	20	4,0813	6,1753	167,1416

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,06609	10	20	4,0813	6,1753	167,1416
s	-	-	-	-	-	-
v	-	-	-	-	-	-

688/PS/05/18

25.05.2018

**Fakultas Teknologi Pertanian  
Universitas Gadjah Mada**

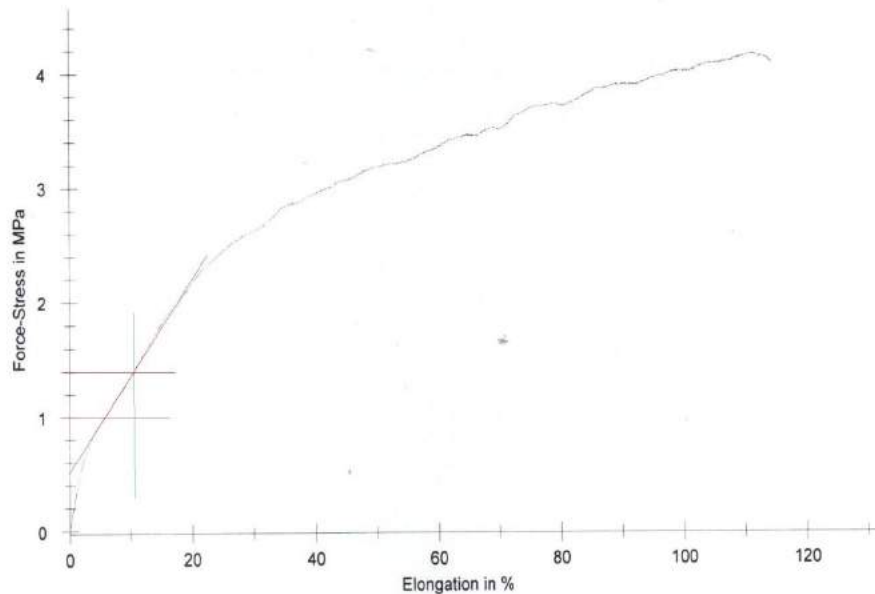
**Parameter table:**

Company name: 688/PS/05/18      Test standard : Tensile strength  
Customer : Wahyu Nur Fatimah      Material : AV/PVA/Kitosan 15%  
Tester : Rachmat  
Test speed: 10 mm/min

**Results:**

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
11	0,06058	10	20	2,5176	4,1559	111,3643

**Series graphics:**



**Statistics:**

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,06058	10	20	2,5176	4,1559	111,3643
s	-	-	-	-	-	-
v	-	-	-	-	-	-



## Fakultas Teknologi Pertanian Universitas Gadjah Mada

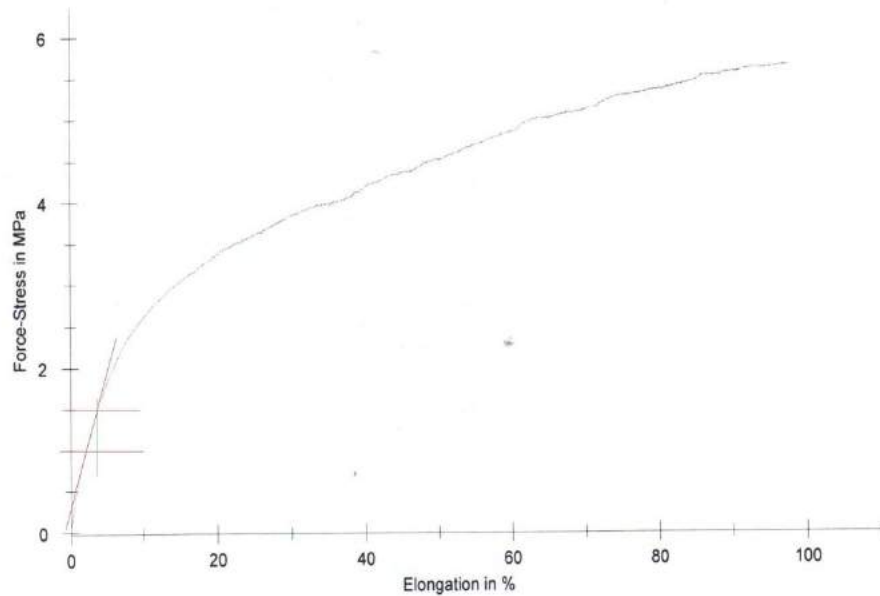
### Parameter table:

Company name:	688/PS/05/18	Test standard	: Tensile strength
Customer	: Wahyu Nur Fatimah	Material	: AV/PVA/Kitosan 15%
Tester	: Rachmat		
Test speed:	10 mm/min		

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
15	0,05287	10	20	2,9836	5,6434	96,9108

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,05287	10	20	2,9836	5,6434	96,9108
s	-	-	-	-	-	-
v	-	-	-	-	-	-

## Fakultas Teknologi Pertanian Universitas Gadjah Mada

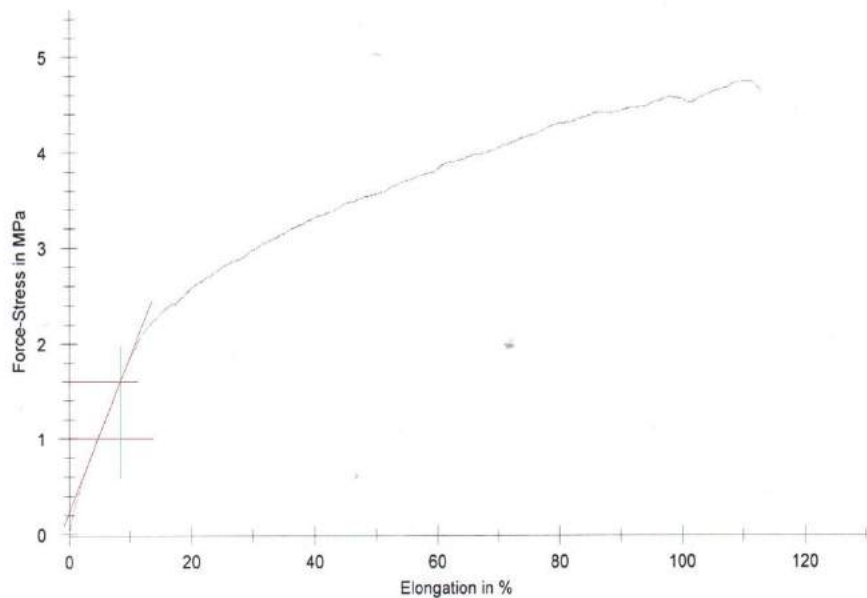
### Parameter table:

Company name :	688/PS/05/18	Test standard :	Tensile strength
Customer :	Wahyu Nur Fatihah	Material :	AV/PVA/Kitosan 15%
Tester :	Rachmat		
Test speed :	10 mm/min		

### Results:

Nr	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
13	0,05507	10	20	2,6145	4,7477	110,2587

### Series graphics:



### Statistics:

Series n = 1	a0 mm	b0 mm	Lc mm	FMax N	Tensile Strength MPa	Strain at Fmax. %
x	0,05507	10	20	2,6145	4,7477	110,2587
s	-	-	-	-	-	-
v	-	-	-	-	-	-

## **LAMPIRAN 6**



Laboratorium Uji  
**TEKNOLOGI PANGAN DAN HASIL PERTANIAN**  
FAKULTAS TEKNOLOGI PERTANIAN  
Universitas Gadjah Mada

Jl. Sosio Yustisia 1, Bulaksumur, Yogyakarta 55281  
Telp.0274-549650, 524517, 901311; Fax. 0274-549650

**HASIL ANALISA**

NO: 369 / PS / 03 / 18

Lab. Penguji : Rekayasa Proses Pengolahan  
Tanggal Pengujian : 27 Maret 2018  
Sampel : Larutan PVA -AV  
Jenis Analisa : Viskositas  
Alat : Viskometer  
Merk : Brookfield

No	Sampel	UI 1(cP)	UI 2(cP)
1	PVA-AV 5%	849,8	849,8

Penyelia



Dr. Rachma Wikandari, STP., M. Biotech

Dilaporkan oleh

Analisis

Rachmat Teguh S



Laboratorium Uji  
**TEKNOLOGI PANGAN DAN HASIL PERTANIAN**  
FAKULTAS TEKNOLOGI PERTANIAN  
**Universitas Gadjah Mada**

Jl. Sosio Yustisia 1, Bulaksumur, Yogyakarta 55281  
Telp.0274-549650, 524517, 901311; Fax. 0274-549650

**HASIL ANALISA**

NO: 570 / PS / 05 / 18

Lab. Penguji : Rekayasa Proses Pengolahan  
Tanggal Pengujian : 3 Mei 2018  
Sampel : Larutan  
Jenis Analisa : Viskositas  
Alat : Viskometer  
Merk : Brookfield

No	Sampel	UI 1(cP)	UI 2(cP)
1	PVA/AV/KIT 30%	729,9	729,9
2	PVA/AV/KIT 10%	379,9	379,9
3	PVA/AV/KIT 15%	359,9	359,9

Penyelia

  
Aulia Ardhi, STP, M.Sc

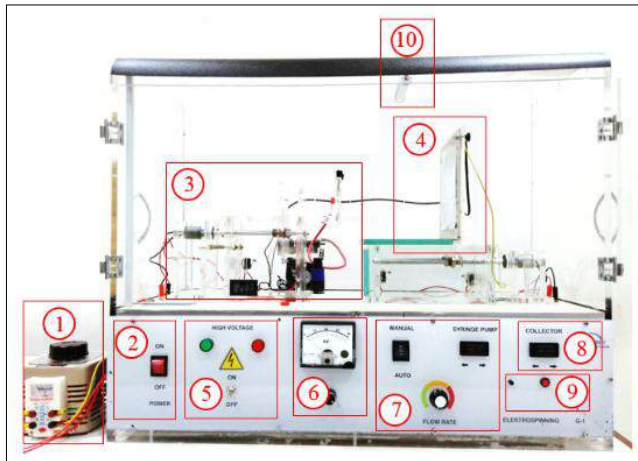
Dilaporkan oleh

Analisis

  
Rachmat Teguh S

## **LAMPIRAN 7**

**Gambar alat Penelitian**



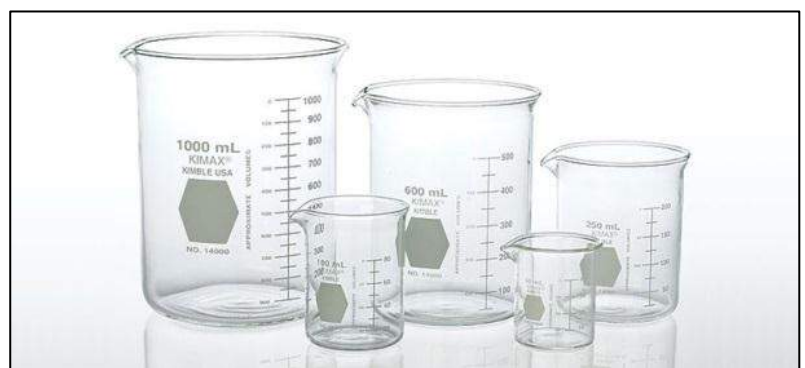
**Elektrospinning**



**Hot plate stirrer**



**Timbangan Digital**



**Gelas Ukur**



**Alumunium Foil**



**Kaca Preparat**



**Syringe**



**Pipet**



**Termometer**



**Spatula**



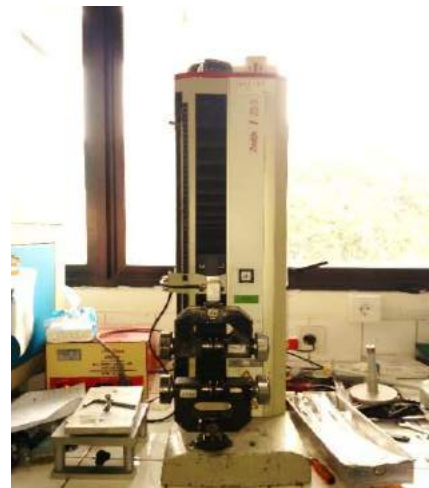
**Pinset**



**Mikroskop Optik (*Optical Microscope*)**



**Viscometer**



**Universal Testing Machine Zwick 0,5**



## **LAMPIRAN 8**



**CERTIFICATE OF ANALYSIS**

Product Name:	Aloe vera Extract 10:1		
Batch No.:	KC150527	Manufacture Date :	May, 27, 2016
Report Date :	May, 27, 2016	Expiry Date:	May, 26, 2016

Items	Specifications	Results
Appearance	Yellow green fine powder	Conforms
Odor	Characteristic	Conforms
Identification	Identical to R.S. sample	Conforms
Extract ratio	10 : 1	Conforms
Used Part	Stem	Conforms
Extract solvent	Water	Conforms
Sieve Analysis	100 % pass 80 mesh	Conforms
Loss On Drying	Max 5.0 %	3.92%
Ash	Max 10.0 %	0.18%
Bulk Density	40~60g/100ml	59g/100ml
Tap Density	60~90g/100ml	72g/100ml
Lead	Max 3.0ppm	0.0909ppm
Arsenic	Max 2.0ppm	0.0133ppm
Cadmium	Max 1.00ppm	0.0128ppm
Mercury	Max 0.1ppm	0.0309ppm
Solvents Residue	Meet Eur.Ph.7.0 <5.4>	Conforms
Pesticides Residue	Meet USP Requirements	Conforms
Total Plat Caunt	Max 1,000cfu/g	35cfu/g
Total Yeast & Mold	Max 100cfu/g	10cfu/g
<i>E. Coli.</i>	Negative	Negative
<i>Salmonella</i>	Negative	Negative

**CONCLUSION: CONFORM TO THE SPECIFICATION**

Package: 25kg/drum, Packed in paper-drums and two plastic-bags inside

Storage: Store in a well-closed container away from moisture, light, oxygen

Shelf Life: 24 months under the conditions above and in its original packaging