

## LAMPIRAN 1

### Mesin Plastik Suntik dan Proses Pembuatan Spesimen



## LAMPIRAN 2

### Hasil Spesimen dan Proses Uji Tarik



### LAMPIRAN 3

#### Proses Uji Struktur Mikro



## LAMPIRAN 4

### Tabel dan Grafik Hasil Uji Tarik

Bahan HDPE 40 %, PET 40 % dan Serbuk Kayu Kelapa 20 %

| No          | T (mm) | W (mm) | Beban Max (N) |
|-------------|--------|--------|---------------|
| 1           | 5      | 12     | 143,8         |
| 2           | 5      | 12     | 96,1          |
| 3           | 5      | 12     | 196,7         |
| Rata - rata |        |        | 147,6         |

Bahan HDPE 50 %, PET 35 % dan Serbuk Kayu Kelapa 15 %

| No          | T (mm) | W (mm) | Beban Max (N) |
|-------------|--------|--------|---------------|
| 1           | 5      | 12     | 250,4         |
| 2           | 5      | 12     | 299           |
| 3           | 5      | 12     | 295,5         |
| Rata - rata |        |        | 281,6         |

Bahan HDPE 60 %, PET 30 % dan Serbuk Kayu Kelapa 10 %

| No          | T (mm) | W (mm) | Beban Max (N) |
|-------------|--------|--------|---------------|
| 1           | 5      | 12     | 409,5         |
| 2           | 5      | 12     | 408,2         |
| 3           | 5      | 12     | 614,5         |
| Rata - rata |        |        | 477,4         |



Bahan PET 100 %

| No | T (mm) | W (mm) | Beban Max (N) |
|----|--------|--------|---------------|
| 1  | 5      | 12     | 95,7          |

Bahan HDPE 100 %

| No | T (mm) | W (mm) | Beban Max (N) |
|----|--------|--------|---------------|
| 1  | 5      | 12     | 1186,3        |

Perhitungan Tegangan Bahan HDPE 40 %, PET 40 % dan Serbuk Kayu Kelapa 20 %

| No        | T (mm) | W (mm) | Beban Max (N) | Luasan Ao | Tegangan Uji Tarik $N/mm^2$ |
|-----------|--------|--------|---------------|-----------|-----------------------------|
| 1         | 5      | 12     | 143,8         | 60        | 2,396                       |
| 2         | 5      | 12     | 96,1          | 60        | 1,708                       |
| 3         | 5      | 12     | 196,7         | 60        | 3,278                       |
| Rata-rata |        |        |               |           | 2,460                       |

Perhitungan Tegangan Bahan HDPE 50 %, PET 35 % dan Serbuk Kayu Kelapa 15 %

| No        | T (mm) | W (mm) | Beban Max (N) | Luasan Ao | Tegangan Uji Tarik $N/mm^2$ |
|-----------|--------|--------|---------------|-----------|-----------------------------|
| 1         | 5      | 12     | 250,4         | 60        | 4,173                       |
| 2         | 5      | 12     | 299           | 60        | 4,983                       |
| 3         | 5      | 12     | 295,5         | 60        | 4,925                       |
| Rata-rata |        |        |               |           | 4,693                       |

Perhitungan Tegangan Bahan HDPE 60 %, PET 30 % dan Serbuk Kayu Kelapa 10 %

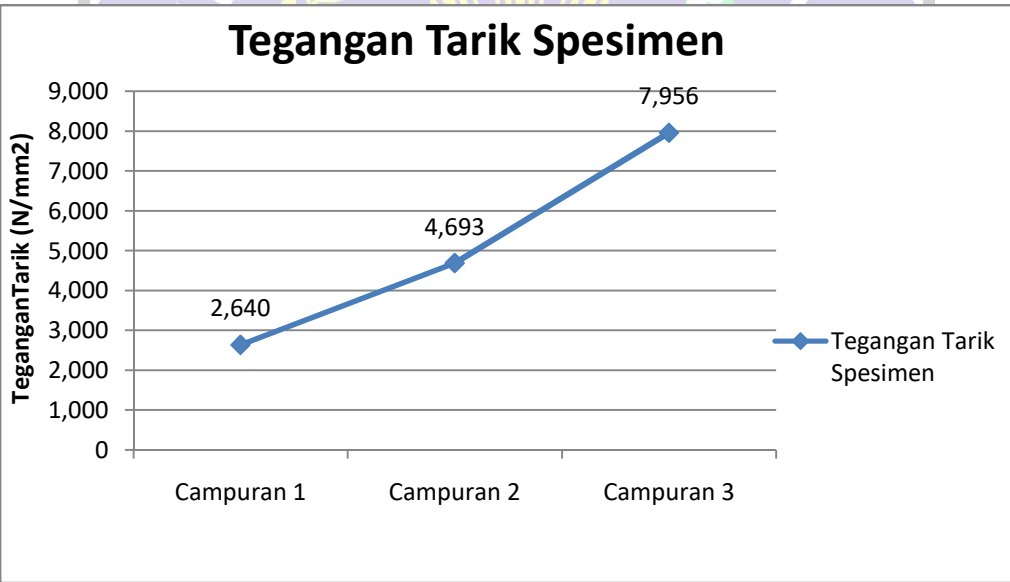
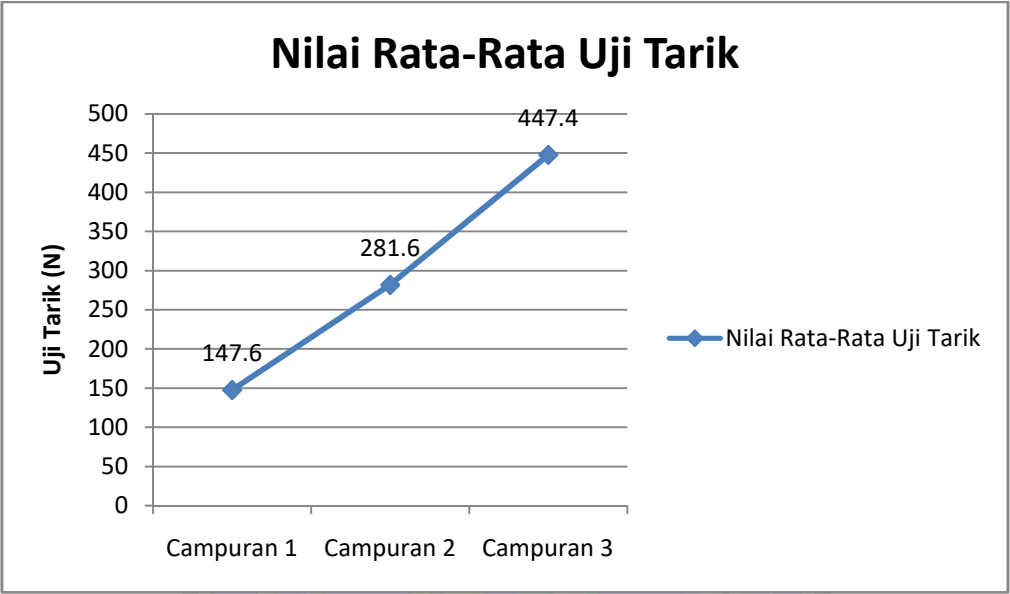
| No        | T (mm) | W (mm) | Beban Max<br>(N) | Luasan Ao | Tegangan Uji<br>Tarik $N/mm^2$ |
|-----------|--------|--------|------------------|-----------|--------------------------------|
| 1         | 5      | 12     | 409,5            | 60        | 6,825                          |
| 2         | 5      | 12     | 408,2            | 60        | 6,803                          |
| 3         | 5      | 12     | 614,5            | 60        | 10,241                         |
| Rata-rata |        |        |                  |           | 7,956                          |

Perhitungan Tegangan Bahan PET 100 %

| No | T (mm) | W (mm) | Beban Max<br>(N) | Luasan Ao | Tegangan Uji<br>Tarik $N/mm^2$ |
|----|--------|--------|------------------|-----------|--------------------------------|
| 1  | 5      | 12     | 95,7             | 60        | 1,595                          |

Perhitungan Tegangan Bahan HDPE 100 %

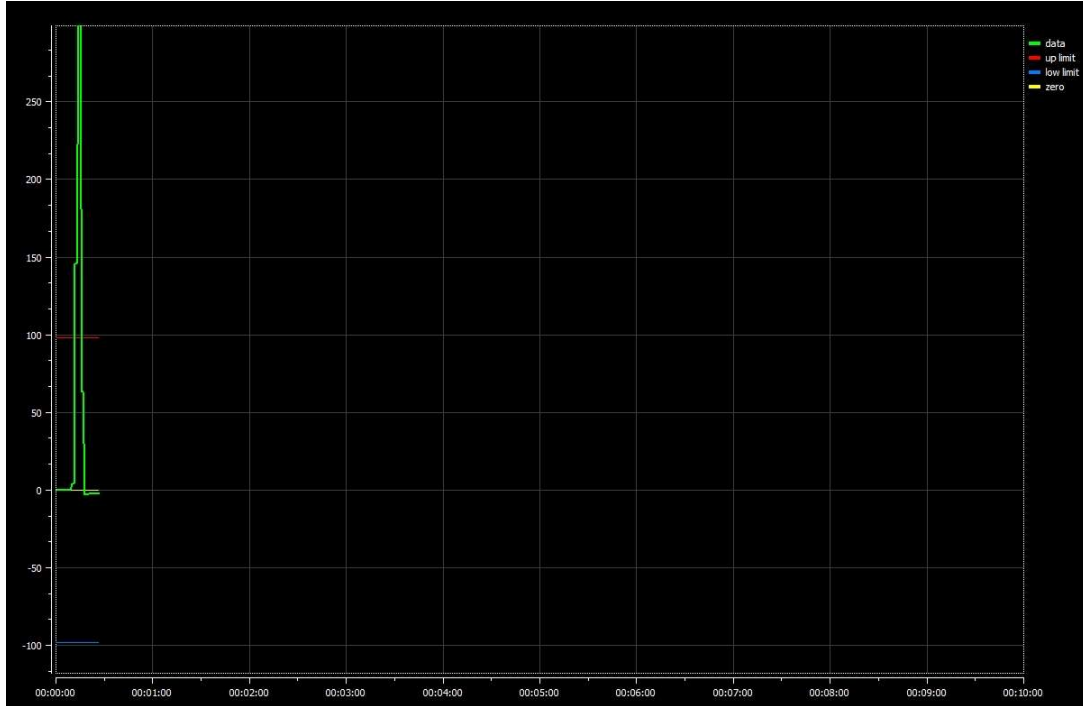
| No | T (mm) | W (mm) | Beban Max<br>(N) | Luasan Ao | Tegangan Uji<br>Tarik $N/mm^2$ |
|----|--------|--------|------------------|-----------|--------------------------------|
| 1  | 5      | 12     | 1186,3           | 60        | 19,771                         |



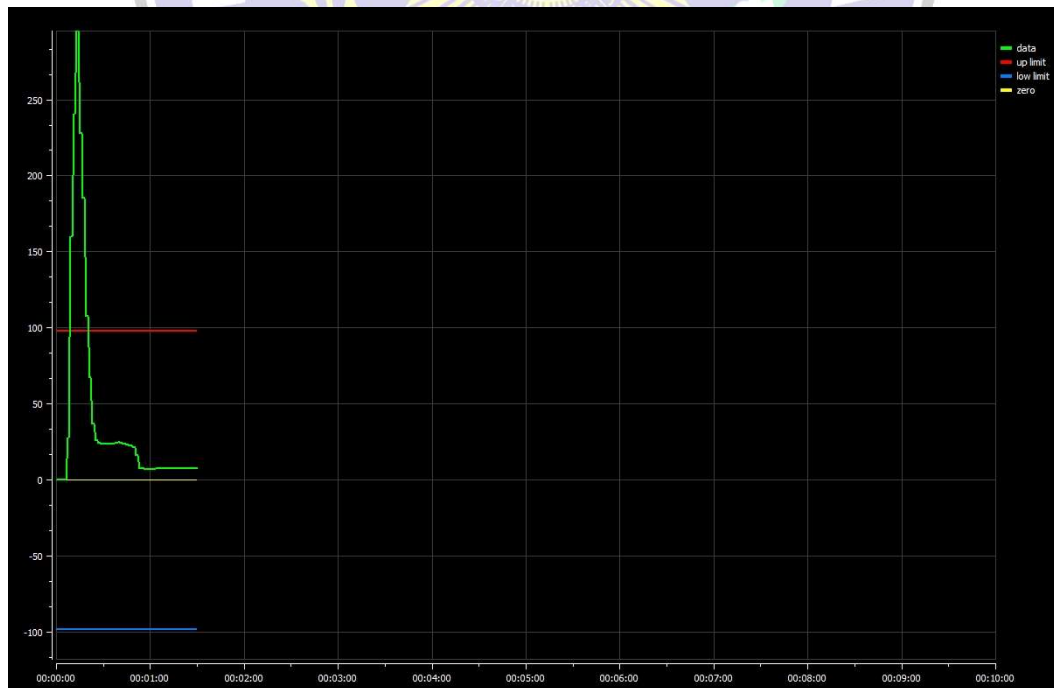
Grafik Komposisi Bahan HDPE 40 %, PET 40 % dan Serbuk Kayu Kelapa 20 %

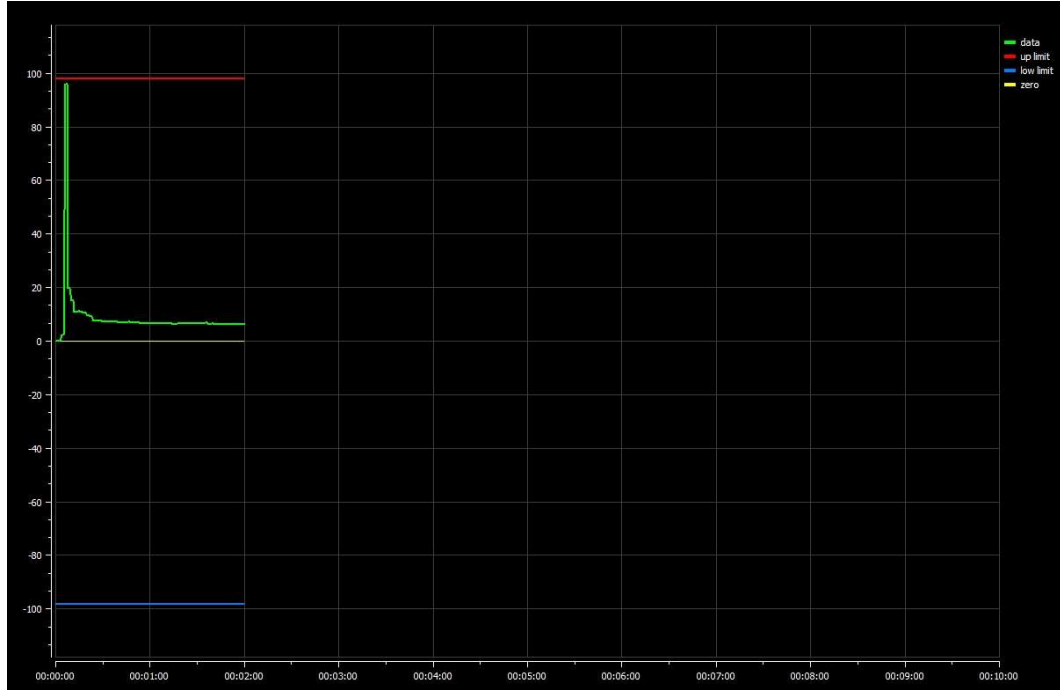




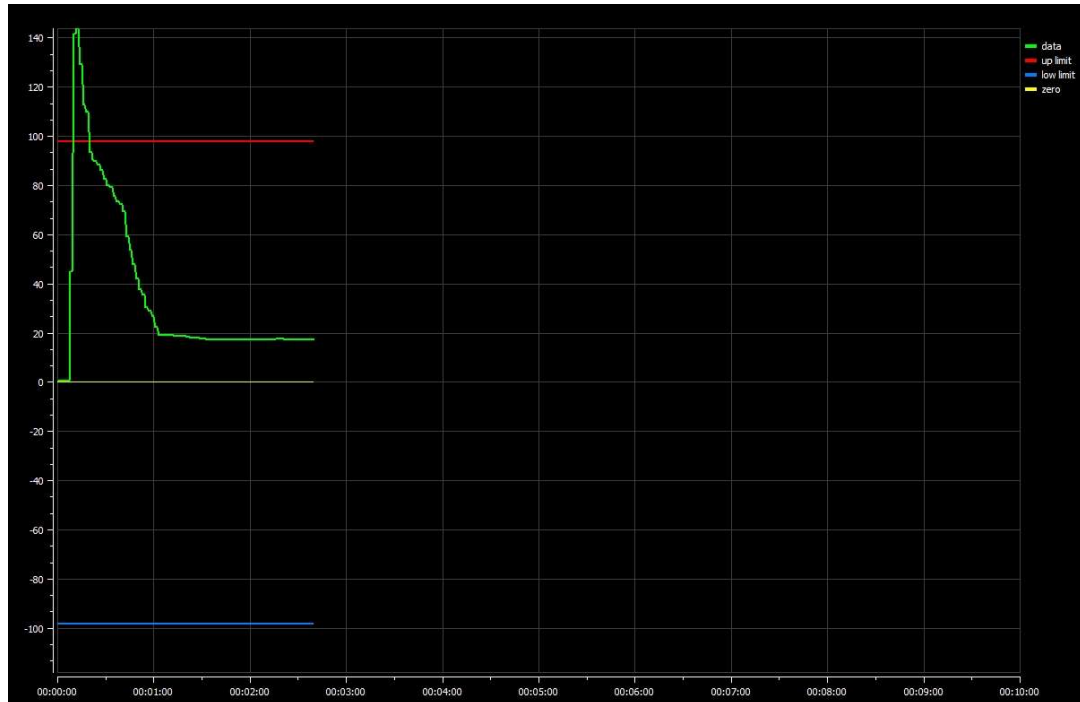


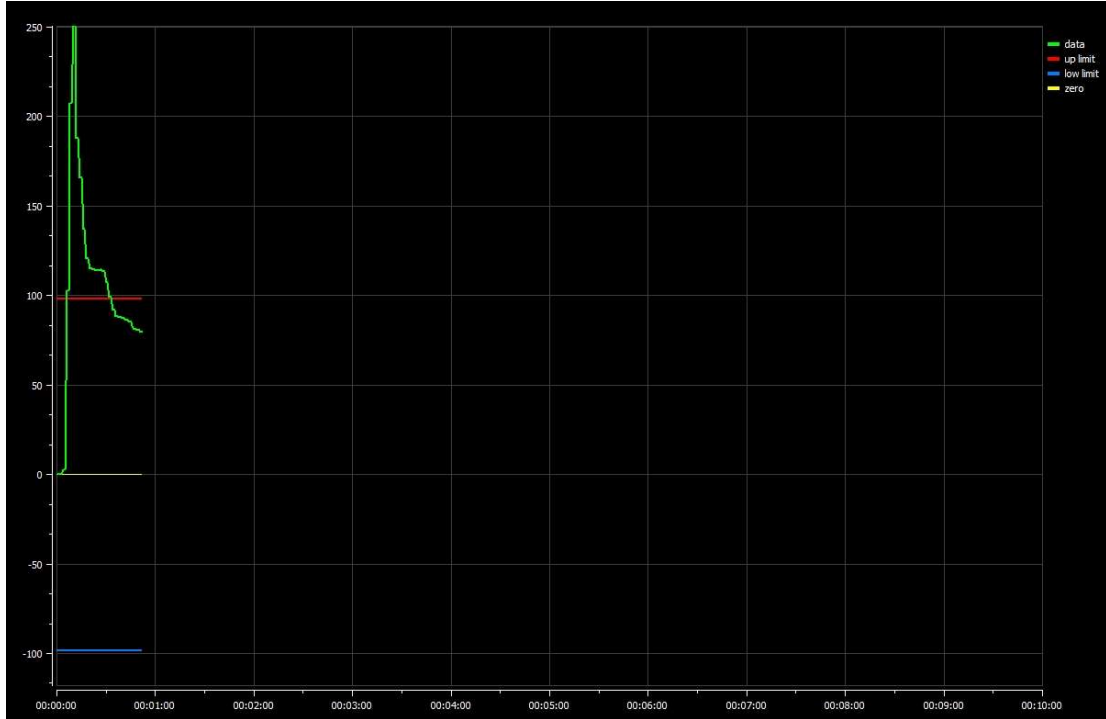
Grafik Komposisi Bahan HDPE 50 %, PET 35 % dan Serbuk Kayu Kelapa 15%





Grafik Komposisi Bahan HDPE 60 %, PET 30 % dan Serbuk KayuKelapa 10%





Grafik Komposisi Bahan PET 100 %



Grafik Komposisi Bahan HDPE 100 %

