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## LAMPIRAN

### Lampiran 1 Dokumentasi kegiatan penelitian

**Gambar B.1** Proses pengecoran/pembuatan spesimen

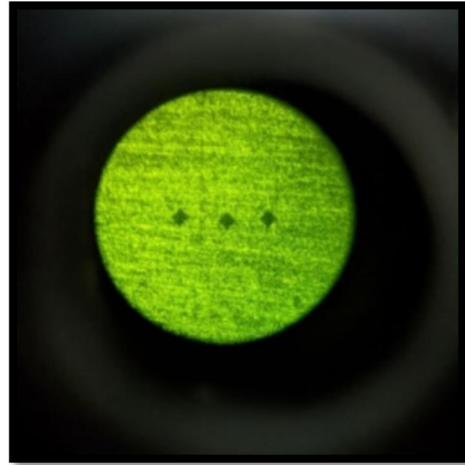






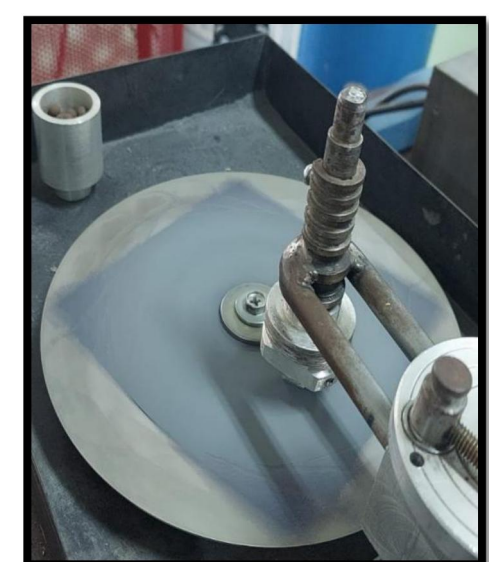


**Gambar B.2** Pengujian Kekerasan

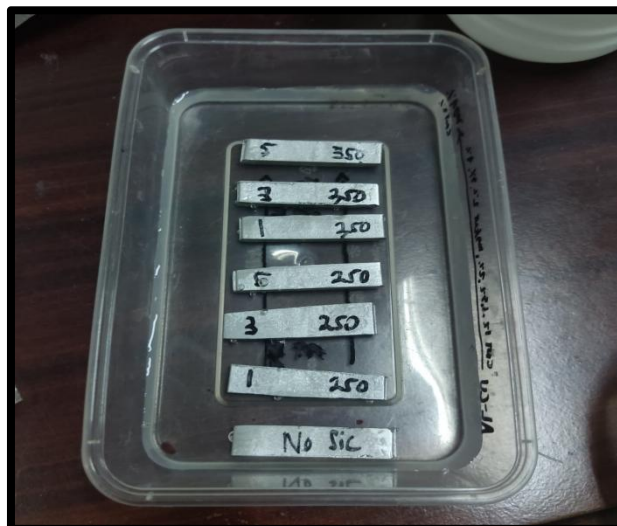




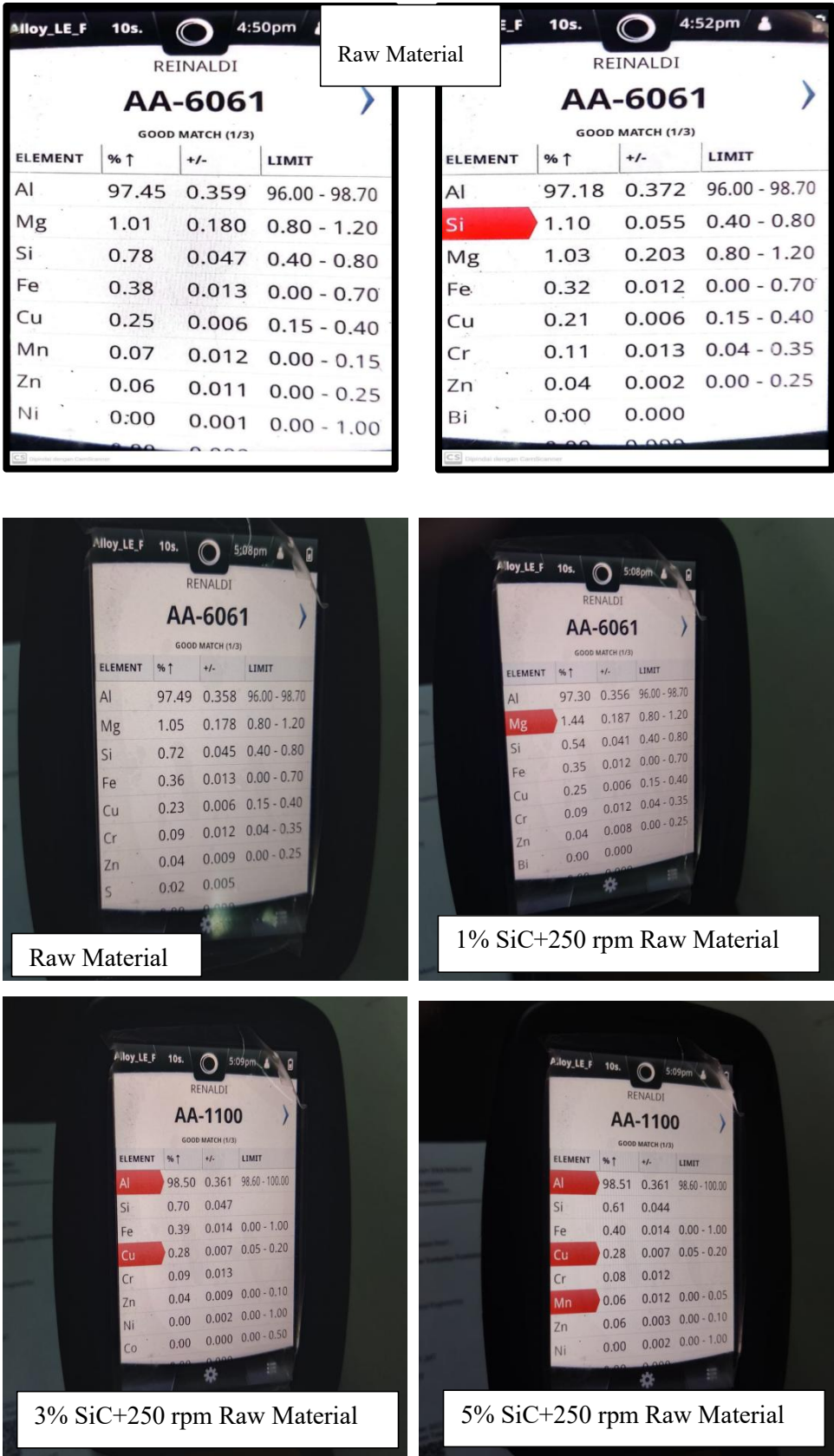
**Gambar B.3** Pengujian Keausan



Gambar B.4 Pengujian Porositas



Gambar B.5 Pengujian Komposisi



Alloy\_LE\_F 10s. 5:10pm

RENALDI

**AA-6061**

GOOD MATCH (1/3)

| ELEMENT | % ↑   | +/-   | LIMIT         |
|---------|-------|-------|---------------|
| Al      | 97.55 | 0.364 | 96.00 - 98.70 |
| Mg      | 0.95  | 0.174 | 0.80 - 1.20   |
| Si      | 0.74  | 0.046 | 0.40 - 0.80   |
| Fe      | 0.36  | 0.013 | 0.00 - 0.70   |
| Cu      | 0.25  | 0.006 | 0.15 - 0.40   |
| Cr      | 0.11  | 0.013 | 0.04 - 0.35   |
| Zn      | 0.04  | 0.009 | 0.00 - 0.25   |

1% SiC+350 rpm Raw Material

Alloy\_LE\_F 10s. 5:10pm

RENALDI

**AA-6061**

GOOD MATCH (1/3)

| ELEMENT | % ↑   | +/-   | LIMIT         |
|---------|-------|-------|---------------|
| Al      | 97.74 | 0.362 | 96.00 - 98.70 |
| Mg      | 0.97  | 0.177 | 0.80 - 1.20   |
| Si      | 0.58  | 0.042 | 0.40 - 0.80   |
| Fe      | 0.34  | 0.013 | 0.00 - 0.70   |
| Cu      | 0.25  | 0.006 | 0.15 - 0.40   |
| Cr      | 0.08  | 0.012 | 0.04 - 0.35   |
| Zn      | 0.04  | 0.009 | 0.00 - 0.25   |

3% SiC+350 rpm Raw Material

Alloy\_LE\_F 10s. 5:11pm

RENALDI

**AA-6061**

GOOD MATCH (1/3)

| ELEMENT | % ↑   | +/-   | LIMIT         |
|---------|-------|-------|---------------|
| Al      | 97.76 | 0.362 | 96.00 - 98.70 |
| Mg      | 0.81  | 0.168 | 0.80 - 1.20   |
| Si      | 0.60  | 0.043 | 0.40 - 0.80   |
| Fe      | 0.39  | 0.014 | 0.00 - 0.70   |
| Cu      | 0.30  | 0.007 | 0.15 - 0.40   |
| Cr      | 0.08  | 0.012 | 0.04 - 0.35   |
| Zn      | 0.06  | 0.003 | 0.00 - 0.25   |
| Bi      | 0.00  | 0.000 |               |

5% SiC+350 rpm Raw Material



**Gambar B.6** Pengamatan Metalografi

