**Tabel 1.** Hasil Pengujian kekuatan Impak

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Spesimen** | **Variasi (Orientasi Serat )** | **Sudut Awal (°)** | **Sudut Akhir (°)** | **Energi Serap (*Joule*)** | **Harga *Impact***  **(*joule/mm2*)** | **Energi Serap Rata-Rata (*Joule*)** | **Harga *Impact Rata-Rata* (*joule/***𝑚𝑚***²*)** |
| AI 1 | Acak | 120° | 74.2 | 10.39 | 0.162 | 10.92 | 0.170 |
| AI 2 | Acak | 120° | 107.3 | 12.17 | 0.190 |
| AI 3 | Acak | 120° | 117.3 | 10.22 | 0.160 |
| PI 1 | Pilin | 120° | 84.5 | 5.51 | 0.086 | 5.17 | 0.081 |
| PI 2 | Pilin | 120° | 95.8 | 7.39 | 0.116 |
| PI 3 | Pilin | 120° | 105.4 | 2.63 | 0.041 |
| LI 1 | Lurus | 120° | 112.1 | 5.35 | 0.084 | 13.80 | 0.127 |
| LI 2 | Lurus | 120° | 110.3 | 4.06 | 0.064 |
| LI 3 | Lurus | 120° | 92.7 | 18.20 | 0.285 |

**Tabel 2.** Data Hasil Uji Bending

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Spesimen** | **Variasi Orientasi Serat** | **Beban**  **(N)** | **Perpanjangan**  **(mm)** | **Tegangan**  **(N/mm2)** | **Regangan**  **(%)** | **Rata-Rata Tegangan (N/mm2)** | **Rata- Rata Regangan(%)** |
| AI 1 | Acak | 180.28 | 5.46 | 82 | 9.06 | 74 | 8.62 |
| AI 2 | Acak | 176.54 | 5.73 | 78 | 8.64 |
| AI 3 | Acak | 159.82 | 4.03 | 62 | 8.17 |
| PI 1 | Pilin | 162.85 | 4.97 | 70 | 8.28 | 70.3 | 8.36 |
| PI 2 | Pilin | 160.38 | 5.26 | 64 | 8.21 |
| PI 3 | Pilin | 174.39 | 5.71 | 77 | 8.59 |
| LI 1 | Lurus | 187.44 | 5.57 | 85 | 9.46 | 80 | 9.05 |
| LI 2 | Lurus | 185.28 | 5.96 | 83 | 9.28 |
| LI 3 | Lurus | 174.62 | 5.83 | 72 | 8.42 |

**Tabel 3.** Hasil Tertinggi dan Terendah pada Pengujian Impak dan Bending

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Pengujian Kekuatan Impak** | | | | **Pengujian Kekuatan Bending** | | | |
| **Energi Serap Impak (Joule)** | | **Harga Impak**  **(Joule/mm2)** | | **Tegangan (N/mm2)** | | **Regangan (%)** | |
| Tertinggi | Terendah | Tertinggi | Terendah | Tertinggi | Terendah | Tertinggi | Terendah |
| 13.80 | 5.17 | 0.170 | 0.081 | 80 | 70.3 | 9.05 | 8.36 |