**Tabel 1.** Variasi Desian Spesimen

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variasi Spesimen | | Pengujian tarik (Mpa) | Pengujian tekuk (Mpa) | Pengujian kerataan permukaan |
|  | 2 lapisan Serat kaca dengan waktu 3 jam penekanan (2L 3J) |  |  |  |
|  | 2 lapisan Serat kaca dengan waktu 4 jam penekanan (2L 4J) |  |  |  |
|  | 2 lapisan Serat kaca dengan waktu 5 jam penekanan (2L 5J) |  |  |  |
|  | 3 lapisan Serat kaca dengan waktu 3 jam penekanan (3L 3J) |  |  |  |
|  | 3 lapisan Serat kaca dengan waktu 4 jam penekanan (3L 4J) |  |  |  |
|  | 3 lapisan Serat kaca dengan waktu 5 jam penekanan (3L 5J) |  |  |  |
|  | 4 lapisan Serat kaca dengan waktu 3 jam penekanan (4L 3J) |  |  |  |
|  | 4 lapisan Serat kaca dengan waktu 4 jam penekanan (4L 4J) |  |  |  |
|  | 4 lapisan Serat kaca dengan waktu 5 jam penekanan (4L 5J) |  |  |  |

**Tabel 2.** Hasil pengujian tarik

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Tegangan (σ)** | | **Regangan (ε)** | | **Modulus Elastisitas (GPa)** |
|  | **True Stress ( MPa )** | **Stress Engineer** | **True Strain** | **Strain Engineer** |
| 2L-3J | 50,330 | 49,028 | 0,032 | 0,033 | 1572,813 |
| 2L-4J | 34,427 | 33 ,562 | 0,032 | 0,033 | 1075,844 |
| 2L-5J | 28,537 | 27,966 | 0,023 | 0,024 | 1240,739 |
| 3L-3J | 52,255 | 49,164 | 0,066 | 0,071 | 791,742 |
| 3L-4J | 24,725 | 24,517 | 0,014 | 0,015 | 1766,071 |
| 3L-5J | 30,964 | 30,647 | 0,014 | 0,015 | 2211,714 |
| 4L-3J | 40,627 | 40,200 | 0,013 | 0,013 | 3125,154 |
| 4L-4J | 53,936 | 53,227 | 0,017 | 0,017 | 3172,706 |
| 4L-5J | 13,398 | 13,258 | 0,016 | 0,016 | 837,375 |

**Tabel 3.** Hasil pengujian tekuk

|  |  |  |
| --- | --- | --- |
| Parameter | Tegangan | Modulus Elastisitas (Mpa) |
| 2L-3J | 384 | 3753.662 |
| 2L-4J | 268 | 3751.749 |
| 2L-5J | 243 | 3747.106 |
| 3L-3J | 247 | 3743.358 |
| 3L-4J | 237 | 3752.967 |
| 3L-5J | 272 | 3748.277 |
| 4L-3J | 217 | 3742.440 |
| 4L-4J | 526 | 3749.554 |
| 4L-5J | 408 | 3748.277 |

**Tabel 4.** Hasil pengujian kerataan permukaan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Koordinat awal** | | **koordinat tengah** | | **koordinat akhir** | |
| **Parameter** | **X** | **Y** | **X** | **Y** | **X** | **Y** |
| 2L-3J | 0 | 0 | -0,1 | -0,1 | -0,1 | -0,1 |
| 2L-4J | 0 | 0 | -0,1 | -0,1 | 0,23 | -0,05 |
| 2L-5J | 0 | 0 | -0,1 | -0,1 | 0,44 | -0,1 |
| 3L-3J | 0 | 0 | -0,1 | -0,1 | 0,85 | -0.,1 |
| 3L-4J | 0 | 0 | -0,1 | -0,1 | -0,1 | -0,1 |
| 3L-5J | 0 | 0 | -0,1 | -0,1 | 0,45 | -0,1 |
| 4L-3J | 0 | 0 | -0,1 | -0,1 | -0,1 | 0,15 |
| 4L-4J | 0 | 0 | -0,1 | -0,1 | 0,03 | -0,1 |
| 4L-5J | 0 | 0 | -0,1 | -0,1 | -0,1 | -0,37 |

**Tabel 5.** Analisa Varian menurut *True stress*

Analysis of Variance

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Source | DF | Seq SS | Contribution | Adj SS | Adj MS | F-Value | P-Value |
| layer | 2 | 0,1475 | 0,88% | 0,1475 | 0,07375 | 0,04 | 0,961 |
| jam | 2 | 9,2538 | 55,28% | 9,2538 | 4,62690 | 2,52 | 0,196 |
| Error | 4 | 7,3400 | 43,84% | 7,3400 | 1,83499 |  |  |
| Total | 8 | 16,7413 | 100,00% |  |  |  |  |

\

**Tabel 6.** Analisa Varian Menurut *True Strain*

Analysis of Variance

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Source | DF | Seq SS | Contribution | Adj SS | Adj MS | F-Value | P-Value |
| layer | 2 | 0,001581 | 27,24% | 0,001581 | 0,000791 | 1,98 | 0,253 |
| jam | 2 | 0,002626 | 45,23% | 0,002626 | 0,001313 | 3,29 | 0,143 |
| Error | 4 | 0,001599 | 27,53% | 0,001599 | 0,000400 |  |  |
| Total | 8 | 0,005806 | 100,00% |  |  |  |  |

**Tabel 7.** Analisa Varian menurut Tegangan

Analysis of Variance

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Source | DF | Seq SS | Contribution | Adj SS | Adj MS | F-Value | P-Value |
| layer | 2 | 26765 | 30,64% | 26765 | 13382 | 0,97 | 0,452 |
| jam | 2 | 5642 | 6,46% | 5642 | 2821 | 0,21 | 0,822 |
| Error | 4 | 54957 | 62,91% | 54957 | 13739 |  |  |
| Total | 8 | 87364 | 100,00% |  |  |  |  |

**Tabel 8.** Analisa Varian Menurut Modulus Elastisitas

Analysis of Variance

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Source | DF | Seq SS | Contribution | Adj SS | Adj MS | F-Value | P-Value |
| layer | 2 | 25,71 | 20,84% | 25,71 | 12,86 | 0,87 | 0,484 |
| jam | 2 | 38,84 | 31,48% | 38,84 | 19,42 | 1,32 | 0,363 |
| Error | 4 | 58,84 | 47,68% | 58,84 | 14,71 |  |  |
| Total | 8 | 123,39 | 100,00% |  |  |  |  |

**Tabel 9.** Analisa Varian Menurut Hasil Pengukuran Kerataan Permukaan

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Analysis of Variance* | | | | | | | |
| Source | DF | Seq SS | Contribution | Adj SS | Adj MS | F-Value | P-Value |
| Layer | 2 | 0,000808 | 25,40% | 0,000808 | 0,000404 | 1,42 | 0,342 |
| Jam | 2 | 0,001234 | 38,77% | 0,001234 | 0,000617 | 2,16 | 0,231 |
| Error | 4 | 0,001140 | 35,82% | 0,001140 | 0,000285 |  |  |
| Total | 8 | 0,003182 | 100,00% |  |  |  |  |