

## LAMPIRAN

Tabel perhitungan kekuatan tarik komposit.

No. Sps	Var.	d (mm)	b (mm)	F (N)	$\Delta L$ (mm)	$\sigma$ (MPa)	$\epsilon$ (%)	E (GPa)
1	5	3.29	13.3	923.2727	0.8	21.10	1.600	1.900
2		3.35	13.21	862.9433	0.8	19.50	1.600	1.790
3		3.33	13.22	858.4407	0.75	19.50	1.500	2.020
4		3.22	13.23	864.7922	0.7	20.30	1.400	2.000
5		3.29	13.26	924.8585	0.95	21.20	1.900	2.000
Min						19.50	1.400	1.790
Max						21.20	1.900	2.020
Rata-rata						20.32	1.600	1.942
Standar Deviasi						0.83	0.187	0.097

No. Sps	Var.	d (mm)	b (mm)	F (N)	$\Delta L$ (mm)	$\sigma$ (MPa)	$\epsilon$ (%)	E (GPa)
1	10	3.24	13.27	950.1851	0.95	22.10	1.900	1.890
2		3.21	13.29	998.2651	0.85	23.40	1.700	1.880
3		3.23	13.21	1024.039	1	24.00	2.000	2.220
4		3.2	13.26	946.2336	0.9	22.30	1.800	2.190
5		3.24	13.29	977.4529	0.95	22.70	1.900	1.980
Min						22.10	1.700	1.880
Max						24.00	2.000	2.220
Rata-rata						22.90	1.860	2.032
Standar Deviasi						0.79	0.114	0.163

No. Sps	Var.	d (mm)	b (mm)	F (N)	$\Delta L$ (mm)	$\sigma$ (MPa)	$\epsilon$ (%)	E (GPa)
1	15	3.26	13.35	1418.785	1.05	32.60	2.100	2.650
2		3.27	13.37	1390.293	1	31.80	2.000	2.710
3		3.21	13.27	1324.757	0.95	31.10	1.900	2.480
4		3.22	13.22	1396.244	1.3	32.80	2.600	2.670
5		3.25	13.42	1430.572	1.05	32.80	2.100	2.540
Min						31.10	1.900	2.480
Max						32.80	2.600	2.710
Rata-rata						32.22	2.140	2.610
Standar Deviasi						0.75	0.270	0.096

Variasi	Teg. Tarik (MPa)	Elong. (%)	Mod. Elast. (GPa)
5	20.32	1.600	1.942
10	22.90	1.860	2.032
15	32.22	2.140	2.610

STDEV	Teg. Tarik (MPa)	Elong. (%)	Mod. Elast. (GPa)
5	0.83	0.187	0.097
10	0.79	0.114	0.163
15	0.75	0.270	0.096

Tabel perhitungan kekuatan impact komposit.

No. Sps	variasi	b (m)	d (m)	W	KI (kJ/m <sup>2</sup> )
1	5 mm	0.01019	0.00285	0.47792	16456.45
2		0.01022	0.00318	0.47449	14599.87
3		0.01024	0.00283	0.4722	16294.45
4		0.01024	0.00279	0.36922	12923.53
5		0.01016	0.00319	0.5941	18330.54
Min				0.36922	12923.53
Max				0.5941	18330.54
Rata-rata				0.477586	15694.13
Standar Deviasi				0.07962	2287.38

No. Sps	variasi	b (m)	d (m)	W (J)	KI (kJ/m <sup>2</sup> )
1	10 mm	0.01024	0.00321	0.75221	22884.11
2		0.01022	0.00338	0.76881	22256.22
3		0.01024	0.0033	0.7617	22540.84
4		0.01024	0.00318	0.75221	23100.00
5		0.01024	0.00289	0.62792	21218.10
Min				0.62792	21218.10
Max				0.76881	23100.00
Rata-rata				0.73257	22399.86
Standar Deviasi				0.0589173	735.15

No. Sps	variasi	b (m)	d (m)	W (J)	KI (kJ/m <sup>2</sup> )
1	15 mm	0.01023	0.00327	0.91627	27390.51
2		0.01008	0.00337	1.02117	30061.29
3		0.01024	0.00326	0.76644	22959.40
4		0.01023	0.00328	1.25497	37401.06
5		0.01023	0.003	1.31009	42687.85
Min				0.76644	22959.40
Max				1.31009	42687.85
Rata-rata				1.053788	32100.02
Standar Deviasi				0.2284234	7907.11