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LAMPIRAN I

TABEL DATA HASIL UJI BENDING

Substrate / Travel Speed (cm/men)	Kuat Bending (MPa)									Kuat Bending Rata-rata (MPa)			Standar Deviasi		
	4			5			6			4	5	6	4	5	6
Baja ST37	3.15	2.9	3.25	2.8	3.2	2.73	2.69	2.61	2.53	3.10	2.91	2.61	0.18	0.25	0.08
Al7075	30.23	28.08	29.37	23.28	26.32	26.82	22.54	18.67	26.35	29.23	25.47	22.52	1.08	1.92	3.84

TABEL DATA HASIL UJI KEKERASAN

Substrate / Travel Speed (cm/men)	Kekerasan Lapisan (HRF)									Kekerasan Lapisan Rata-rata (HRF)			Standar Deviasi		
	4			5			6			4	5	6	4	5	6
Baja ST37	51.7	54.2	50.7	49.3	51.3	50.1	48.8	46.8	49.3	52.20	50.23	48.30	1.80	1.01	1.32
Al7075	29.6	32.8	32.8	30.1	29.9	24.3	25.2	22.9	27.6	31.73	28.10	25.23	1.85	3.29	2.35

TABEL DATA HASIL UJI KEAUSAN

Substrate / Lama Pengausan (s)	Massa Keausan (mg)									Massa Keausan Rata-rata (mg)			Standar Deviasi		
	10			40			80			10	40	80	10	40	80
Baja ST37	0.5	0.8	0.7	1.7	1.64	1.63	3.58	3.49	3.64	0.66	1.66	3.57	0.15	0.04	0.08
Al7075	1.3	2	3.7	7	8.7	10	13.7	16.2	20	2.33	8.57	16.63	1.23	1.50	3.17

ANALISIS STATISTIK ANOVA PENGUJIAN BENDING SUBSTRATE BAJA ST37

SUBSTRATE BAJA ST37		
TS4	TS5	TS6
3.15	2.8	2.69
2.9	3.2	2.61
3.25	2.73	2.53

Anova: Single
Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Column 1	3	9.300	3.100	0.033
Column 2	3	8.730	2.910	0.064
Column 3	3	7.830	2.610	0.006

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	0.366	2.000	0.183	5.323	0.047	5.143
Within Groups	0.206	6.000	0.034			
Total	0.573	8.000				

ANALISIS STATISTIK ANOVA PENGUJIAN BENDING SUBSTRATE AI7075

Anova: Single
Factor

SUBSTRATE AI7075		
TS4	TS5	TS6
30.23	28.08	29.37
23.28	26.32	26.82
22.54	18.67	26.35

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Column 1	3	76.050	25.350	17.998
Column 2	3	73.070	24.357	25.028
Column 3	3	82.540	27.513	2.641

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	15.631	2.000	7.816	0.513	0.623	5.143
Within Groups	91.333	6.000	15.222			
Total	106.964	8.000				

ANALISIS STATISTIK ANOVA PENGUJIAN KEKERASAN SUBSTRATE BAJA ST37 DAN AI7075

UJI KEKERASAN	
SUBSTRATE BAJA ST37	SUBSTRATE AI7075
52.5	31.73
50.23	28.1
48.3	25.23

Anova: Single
Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Column 1	3	151.030	50.343	4.420
Column 2	3	85.060	28.353	10.611

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P- value</i>	<i>F crit</i>
Between Groups	725.340	1.000	725.340	96.517	0.001	7.709
Within Groups	30.061	4.000	7.515			
Total	755.401	5.000				

ANALISIS STATISTIK ANOVA PENGUJIAN KEAUSAN SUBSTRATE BAJA ST37 DAN AI7075

UJI KEKERASAN	
SUBSTRATE BAJA ST37	SUBSTRATE AI7075
0.66	2.33
1.66	8.57
3.57	16.63

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Column 1	3	5.890	1.963	2.186
Column 2	3	27.530	9.177	51.399

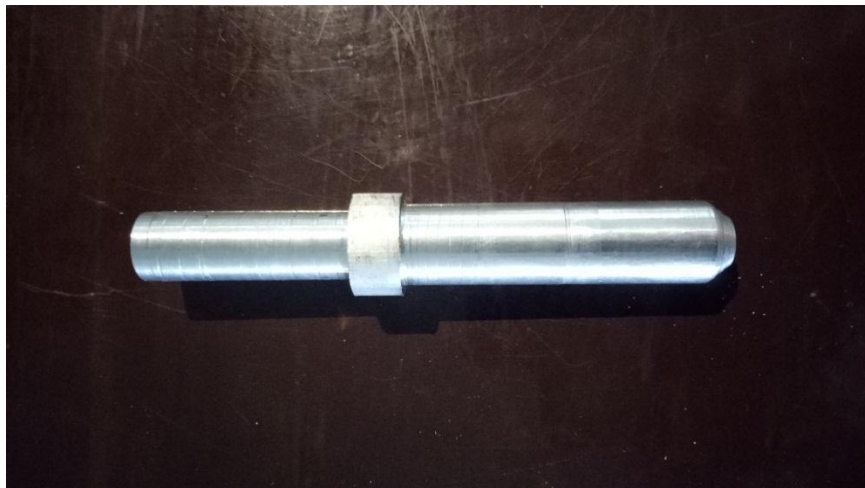
ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	78.048	1.000	78.048	2.913	0.163	7.709
Within Groups	107.169	4.000	26.792			
Total	185.217	5.000				

LAMPIRAN II



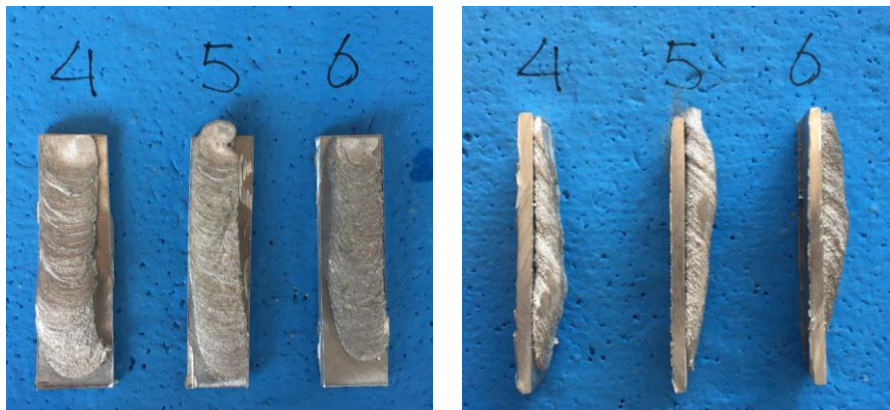
Consumable Rod Sebelum dibubut



Consumable Rod Setelah dibubut



Proses *Friction surfacing*



Lapisan Hasil Proses *Friction surfacing*

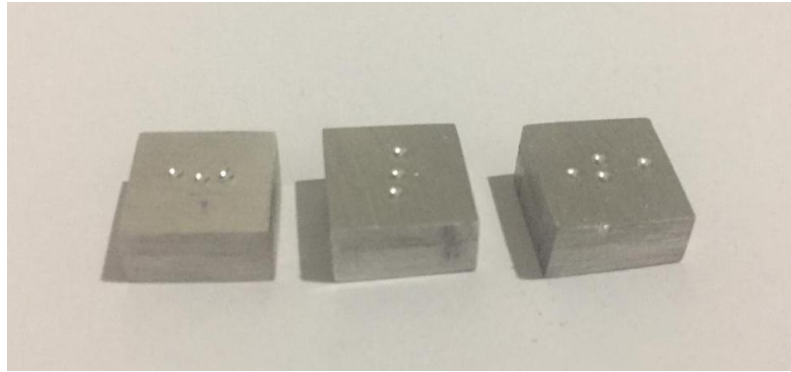
LAMPIRAN III



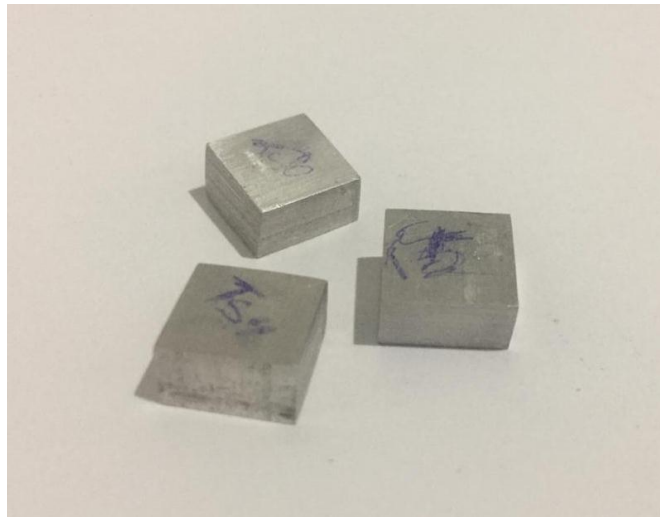
Spesimen Pengujian Bending ASTM E8/E8M-16A Sebelum diuji Bending



Spesimen Pengujian Bending ASTM E8/E8M-16a Setelah diuji Bending



Spesimen Pengujian Kekerasan

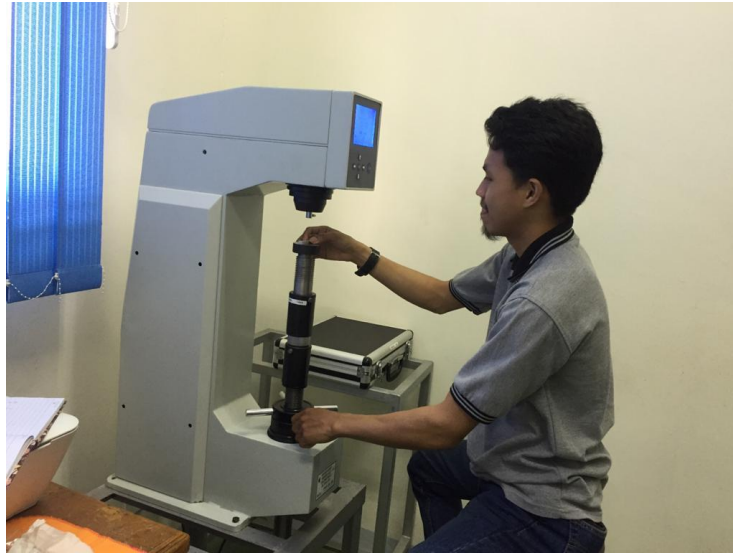


Spesimen Pengujian Keausan



Spesimen Pengujian SEM

LAMPIRAN IV



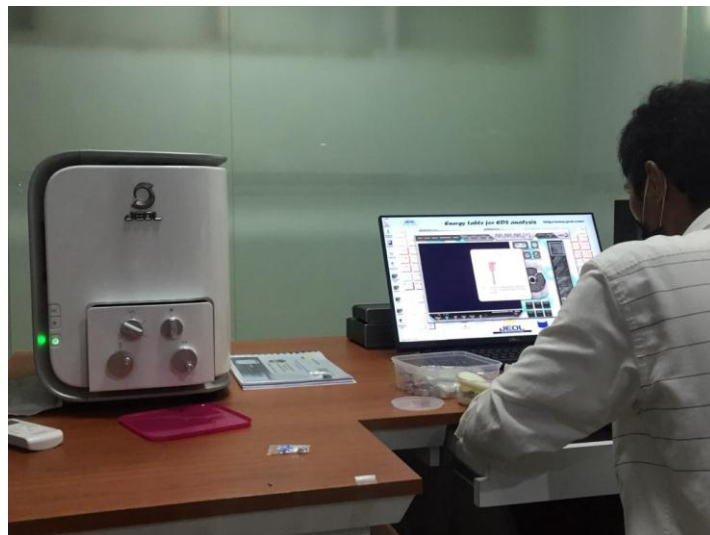
Pengambilan Data Pengujian Kekerasan



Pengambilan Data Pengujian Bending



Pengambilan Data Keausan



Pengambilan Data Pengujian SEM

