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LAB. METALURGI FISIK T. MESIN FT-UH

BENDING BAHAN GIGI PALSU

Product Name	Akrilic	Method File Name	Bending acrylic max
Operator	Edi iskandar	Report Date	2023/04/11
Test Date	2213/01/04	Speed	2mm/min

Name	Thickness	Width	Lower_Support
Unit	mm	mm	mm
KAKAO 1	3,3	10	28.0000
KAKAO 2	3,3	10	28.0000
KAKAO 3	3,3	10	28.0000
KAKAO 4	3,3	10	28.0000
KAKAO 5	3,3	10	28.0000
KAKAO 6	3,3	10	28.0000
KAKAO 7	3,3	10	28.0000
KAKAO 8	3,3	10	28.0000
KAKAO 9	3,3	10	28.0000
KAKAO 10	3,3	10	28.0000

Name	Max_Force	Max_Displ.	Break_Force	Break_Displ.
Parameters	Calc. at Entire Area	Calc. at Entire Area	Sensitivity 10	Sensitivity 10
Unit	N	mm	N	mm
KAKAO 1	141.308	3.23443	141.308	3.23443
KAKAO 2	215.002	4.29543	215.002	4.29543
KAKAO 3	145.141	3.14910	145.141	3.14910
KAKAO 4	184.837	3.17583	184.837	3.17583
KAKAO 5	201.101	5.38377	201.016	5.38843
KAKAO 6	99.5612	3.14013	99.5612	3.14013
KAKAO 7	179.034	2.68843	179.034	2.68843
KAKAO 8	155.490	6.38413	155.403	6.38680
KAKAO 9	172.791	4.18310	172.565	4.18777
KAKAO 10	189.928	4.92947	189.852	4.93613

Name	Thickness	Width	Lower_Support
Unit	mm	mm	mm
POLIDENT 1	3.3	10	28.0000
POLIDENT 2	3.3	10	28.0000
POLIDENT 3	3.3	10	28.0000
POLIDENT 4	3.3	10	28.0000
POLIDENT 5	3.3	10	28.0000
POLIDENT 6	3.3	10	28.0000
POLIDENT 7	3.3	10	28.0000
POLIDENT 8	3.3	10	28.0000
POLIDENT 9	3.3	10	28.0000
POLIDENT10	3.3	10	28.0000

Name	Max_Force	Max_Displ.	Break_Force	Break_Displ.
Parameters	Calc. at Entire Area	Calc. at Entire Area	Sensitivity 10	Sensitivity 10
Unit	N	mm	N	mm
POLIDENT 1	171.914	5.04610	171.858	5.04977
POLIDENT 2	134.972	3.31007	134.972	3.31007
POLIDENT 3	122.756	3.88977	122.740	3.89077
POLIDENT 4	165.322	3.03847	165.322	3.03847
POLIDENT 5	145.571	5.98410	145.439	6.01107
POLIDENT 6	110.427	2.92177	110.427	2.92177
POLIDENT 7	203.842	3.69373	203.842	3.69373
POLIDENT 8	217.036	4.58077	217.018	4.58377
POLIDENT 9	204.196	4.71647	204.189	4.71680
POLIDENT10	104.699	2.46877	104.699	2.46877

KEKUATAN LENTUR

Tests of Normality

Unit	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Kekuatan Lentur Polident	.169	10	.200*	.928	10	.432

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Tests of Normality

Unit	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Kekuatan Lentur Kakao	.151	10	.200*	.960	10	.781

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

1. Uji normalitas menggunakan Saphiro-Wilk. Didapatkan nilai p untuk polident yakni $0.432 > 0.05$, dan nilai p untuk kakao yakni $0.781 > 0.05$ artinya data terdistribusi normal.
2. Karena data terdistribusi normal, maka analisis bivariat yang digunakan adalah Uji t tidak berpasangan (Independent t test)

Group Statistics

Unit	N	Mean	Std. Deviation	Std. Error Mean
Kekuatan Lentur Polident	10	60.9649862	15.74462031	4.97888611
Kekuatan Lentur Kakao	10	64.9551096	13.03932200	4.12339567

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Kekuatan Lentur	Equal variances assumed	.880	.361	-.617	18	.545	-3.99012342	6.46464993	-17.57184894	9.59160210
	Equal variances not assumed			-.617	17.396	.545	-3.99012342	6.46464993	-17.60572669	9.62547986

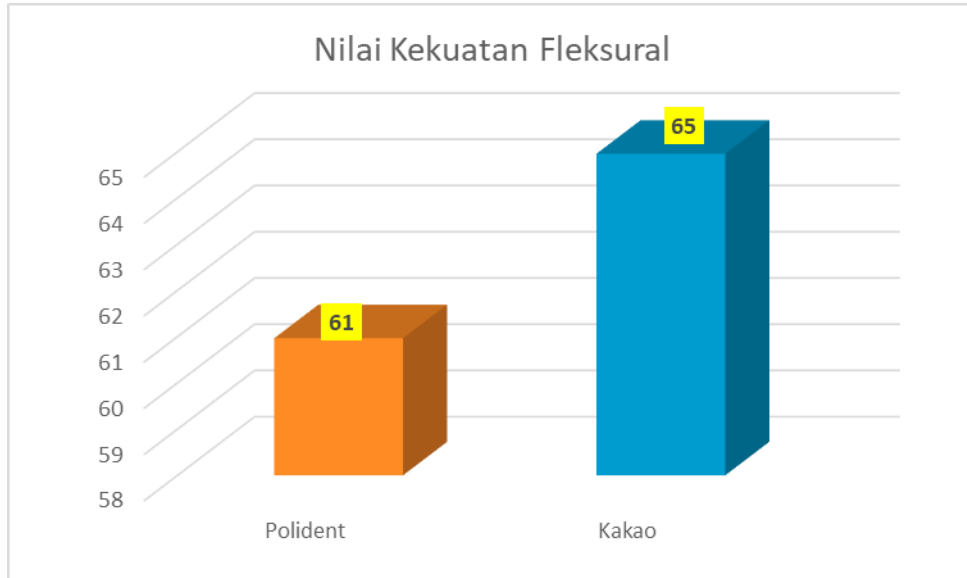
3. Hasil analisis Independent t test didapatkan nilai p = 0.361 yang berarti varians homogen sehingga hasil yang dibaca adalah baris atas yakni p = 0.545 dimana > 0.05 .

Karena nilai p 0.545 > alfa 0.05, maka H0 diterima

Kesimpulan, tidak ada perbedaan signifikan antara rata-rata kekuatan lentur unit polident dengan unit kakao

Tabel 5. 1 Nilai Rerata dan Standar Deviasi Kekuatan Fleksural

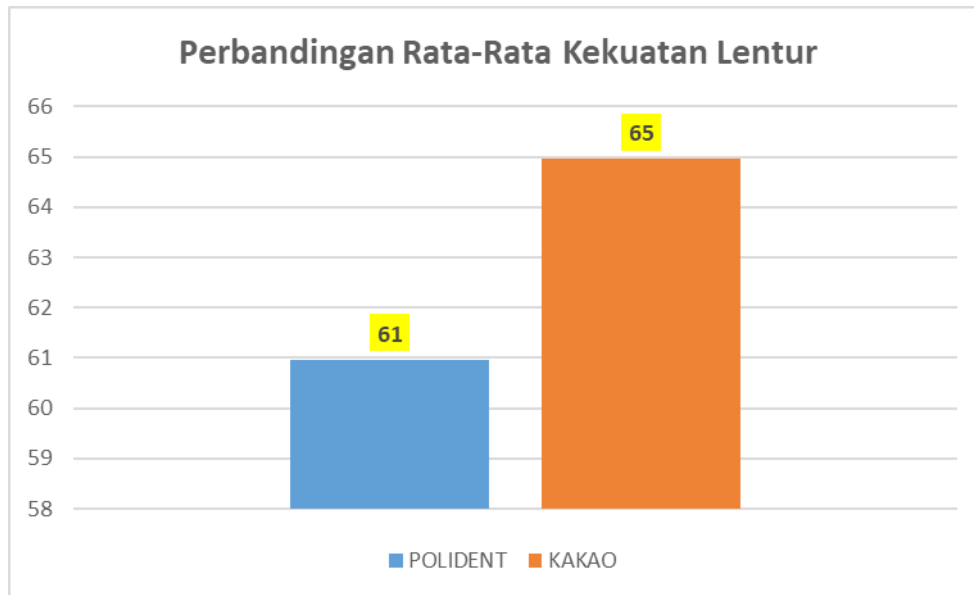
Unit	Uji Normalitas	Uji Homogenitas
Polident	p = 0.432	p = 0.361
Kakao	p = 0.781	



Gambar 1. Diagram Rerata Nilai Kekuatan Fleksural

Tabel 5. 2 Nilai Rerata dan Standar Deviasi Kekuatan Fleksural

Unit	Rerata Nilai Kekuatan Fleksural (MPa) ± Standar Deviasi
Polident	60.96 ± 15.74
Kakao	64.96 ± 13.03



WAKTU BUIH

Tests of Normality

Unit	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Waktu Buih						
Polident	.201	10	.200 [*]	.865	10	.088
Kakao	.209	10	.200 [*]	.941	10	.559

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

1. Uji normalitas menggunakan Saphiro-Wilk. Didapatkan nilai p untuk polident yakni $0.088 > 0.05$, dan nilai p untuk kakao yakni $0.559 > 0.05$ artinya data terdistribusi normal.
2. Karena data terdistribusi normal, maka analisis bivariat yang digunakan adalah Uji t tidak berpasangan (Independent t test)

Group Statistics

Unit	N	Mean	Std. Deviation	Std. Error Mean
Waktu Buih				
Polident	10	2.7920	.22360	.07071
Kakao	10	8.1310	.39806	.12588

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Waktu Buih	Equal variances assumed	1.598	.222	-36.979	18	.000	-5.33900	.14438	-5.64233	-5.03567
	Equal variances not assumed			-36.979	14.165	.000	-5.33900	.14438	-5.64832	-5.02968

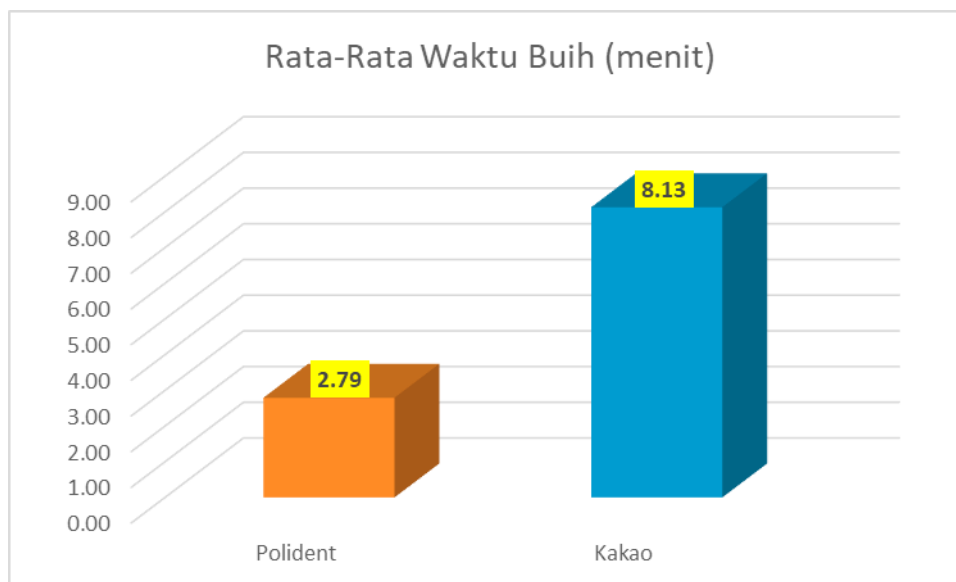
3. Hasil analisis Independent t test didapatkan nilai $p = 0.222$ yang berarti varians homogen sehingga hasil yang dibaca adalah baris atas yakni $p = 0.000$ dimana < 0.05 .

Karena nilai $p = 0.000 < \alpha = 0.05$, maka H_0 ditolak

Kesimpulan, ada perbedaan signifikan antara rata-rata waktu buih unit polident dengan unit kakao

Tabel 5. 2 Nilai Rerata dan Standar Deviasi Waktu Buih

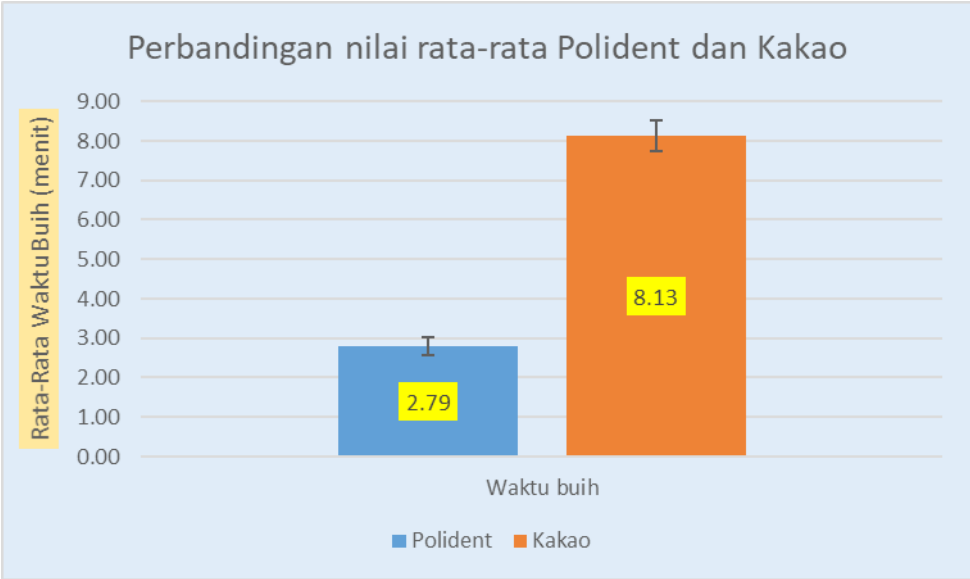
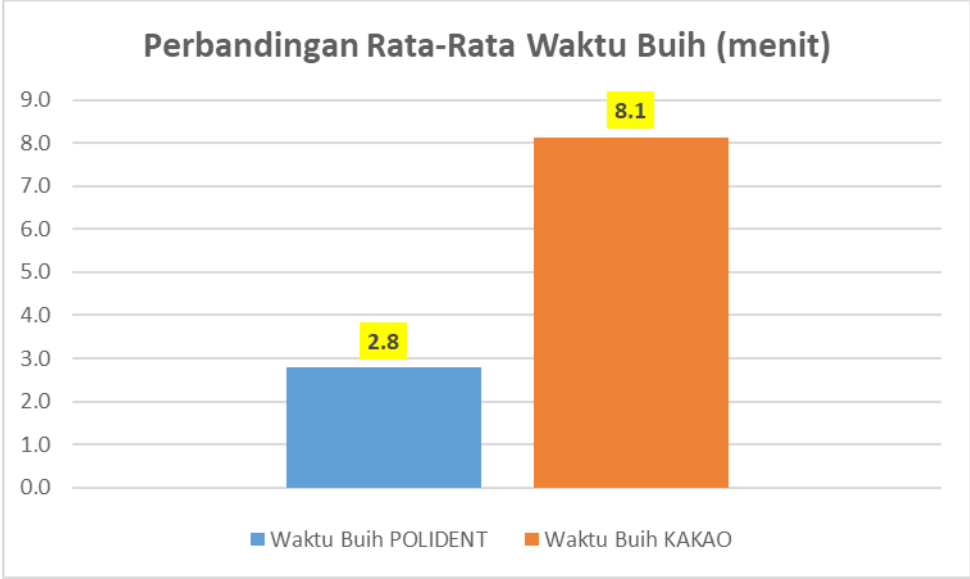
Unit	Uji Normalitas	Uji Homogenitas
Polident	$p = 0.088$	$p = 0.222$
Kakao	$p = 0.559$	

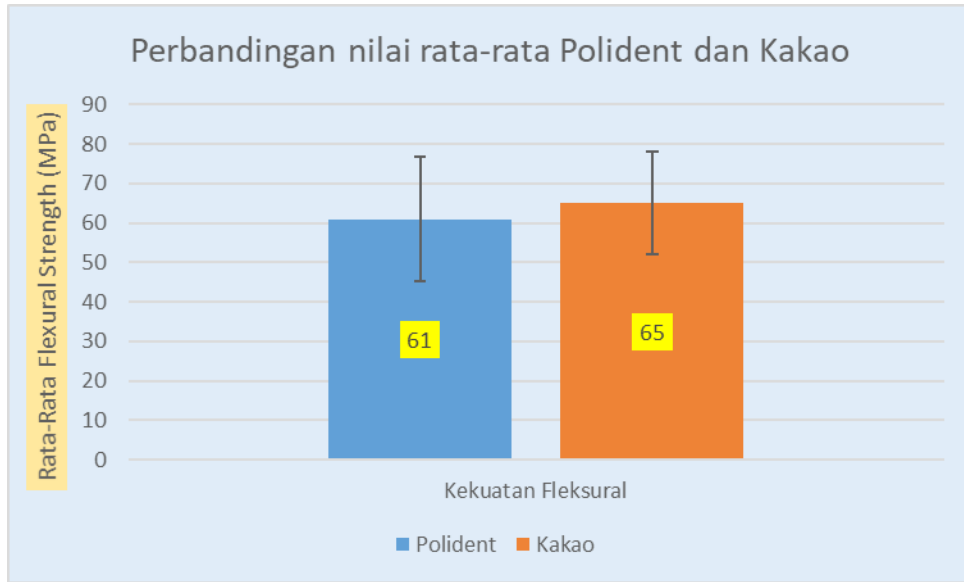


Gambar 1. Diagram Rerata Nilai Waktu Buih

Tabel 5. 2 Nilai Rerata dan Standar Deviasi Waktu Buih (menit)

Unit	Rerata Nilai Buih ± Standar Deviasi
Polident	2.79 ± 0.22
Kakao	8.13 ± 0.39





Unit	<i>Flexural Strength</i>	Waktu Buih (menit)
Polident	60.96	2.79
Kakao	64.96	8.13

