

LAMPIRAN

Lampiran 1. Sertifikat Kitosan

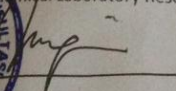
BALAI PENELITIAN DAN KONSULTASI INDUSTRI
LABORATORIUM
PENELITIAN DAN KONSULTASI INDUSTRI
SURABAYA – JAWA TIMUR


REPORT
 Certificate of Analysis

No : 07049/KI/X-2017
 Code : Penelitian
 Sample Sender : Pns. FKG
 Sample Name : Sitosan C Rajungan
 Test : Kadar sitosan-Der. Asetilasi
 Sample Brand :
 Sample Identity : Padatan serbuk kekuningan
 Sample Accepted : 1 Okt.2017

Chemical laboratory test result is :

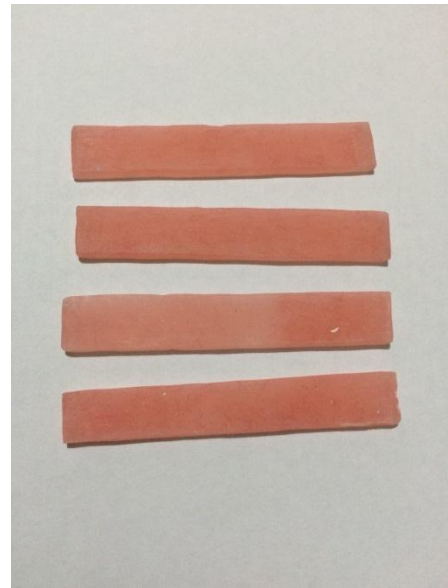
1. Sitosan , % : 86,71
 2. Derajat asetilasi : 95,64

Surabaya, 2 Okt. 2017
 Head of Chemical Laboratory Researcher

 Drs M. Fatoni, M.S.



Laboratory Office Jl. Ketintang Baru XVII no 14
 Telp 08155151337, Bank BCA – Bank Jatim
 Surabaya

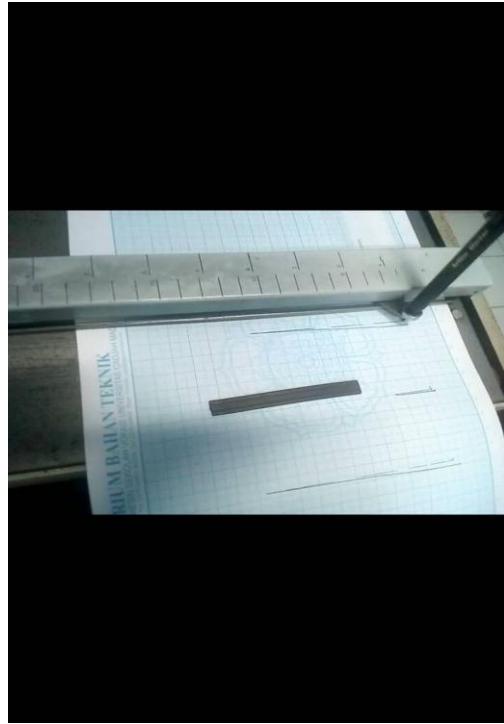
Lampiran 2. Dokumentasi dan Foto Penelitian
Resin akrilik



Lampiran 3.

Uji Tarik menggunakan UTM





Lampiran 4.

Hasil data dengan SPSS

Descriptives

Descriptives ^a			Statistic	Std. Error
Lebar (mm)	Mean		9.8713	.07355
	95% Confidence Interval for Mean	Lower Bound	9.7145	
		Upper Bound	10.0280	
	5% Trimmed Mean		9.8758	
	Median		9.8750	
	Variance		.087	
	Std. Deviation		.29421	
	Minimum		9.25	
	Maximum		10.41	
	Range		1.16	
	Interquartile Range		.31	
	Skewness		-.150	.564
	Kurtosis		.506	1.091
	Tebal (mm)	Mean		3.1750
95% Confidence Interval for Mean		Lower Bound	3.0453	
		Upper Bound	3.3047	
5% Trimmed Mean			3.1717	
Median			3.1850	
Variance			.059	
Std. Deviation			.24334	
Minimum			2.78	
Maximum			3.63	
Range			.85	
Interquartile Range			.37	
Skewness			-.048	.564
Kurtosis			-.596	1.091
Gaya (kN)		Mean		.0900
	95% Confidence Interval for Mean	Lower Bound	.0790	
		Upper Bound	.1010	
	5% Trimmed Mean		.0889	
	Median		.0950	
	Variance		.000	
	Std. Deviation		.02066	
	Minimum		.06	
	Maximum		.14	
	Range		.08	
	Interquartile Range		.03	
	Skewness		.571	.564
	Kurtosis		.910	1.091
	Hasil perhitungan kekuatan transversal	Mean		54.0713
95% Confidence Interval for Mean		Lower Bound	48.9017	
		Upper Bound	59.2408	
5% Trimmed Mean			53.8997	
Median			54.4550	
Variance			94.118	
Std. Deviation			9.70145	
Minimum			36.23	
Maximum			75.00	
Range			38.77	
Interquartile Range			12.42	
Skewness			.287	.564
Kurtosis			.278	1.091

a. L (ketetapan) is constant. It has been omitted.

Lampiran B. Uji Normalitas

Tests of Normality^a

	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Lebar (mm)	.135	16	.200*	.964	16	.726
Tebal (mm)	.104	16	.200*	.977	16	.930
Gaya (kN)	.189	16	.129	.916	16	.146
Hasil perhitungan kekuatan transversal	.098	16	.200*	.987	16	.995

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

a. Lilliefors Significance Correction

b. L (ketetapan) is constant. It has been omitted.

Lampiran C. Uji Homogenitas

Test of Homogeneity of Variances

	Levene Statistic	df 1	df 2	Sig.
Lebar (mm)	1.716	3	12	.217
Tebal (mm)	1.107	3	12	.384
Gaya (kN)	.606	3	12	.624
L (ketetapan)	.	3	.	.
Hasil perhitungan kekuatan transversal	.614	3	12	.619

Lampiran D. Uji Anova

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Lebar (mm)	Between Groups	.424	3	.141	1.938	.177
	Within Groups	.875	12	.073		
	Total	1.298	15			
Tebal (mm)	Between Groups	.235	3	.078	1.442	.279
	Within Groups	.653	12	.054		
	Total	.888	15			
Gaya (kN)	Between Groups	.004	3	.001	4.828	.020
	Within Groups	.003	12	.000		
	Total	.006	15			
L (ketetapan)	Between Groups	.000	3	.000	.	.
	Within Groups	.000	12	.000		
	Total	.000	15			
Hasil perhitungan kekuatan transversal	Between Groups	346.575	3	115.525	1.301	.319
	Within Groups	1065.198	12	88.766		
	Total	1411.773	15			

Post Hoc Tests

Multiple Comparisons

LSD

Dependent Variable	(I) Konsentrasi	(J) Konsentrasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Lebar (mm)	0 %	0.13 %	-.04250	.19090	.828	-.4584	.3734
		0.26 %	-.37750	.19090	.071	-.7934	.0384
		0.40 %	.02500	.19090	.898	-.3909	.4409
	0.13 %	0 %	.04250	.19090	.828	-.3734	.4584
		0.26 %	-.33500	.19090	.105	-.7509	.0809
		0.40 %	.06750	.19090	.730	-.3484	.4834
	0.26 %	0 %	.37750	.19090	.071	-.0384	.7934
		0.13 %	.33500	.19090	.105	-.0809	.7509
		0.40 %	.40250	.19090	.057	-.0134	.8184
	0.40 %	0 %	-.02500	.19090	.898	-.4409	.3909
		0.13 %	-.06750	.19090	.730	-.4834	.3484
		0.26 %	-.40250	.19090	.057	-.8184	.0134
Tebal (mm)	0 %	0.13 %	.26250	.16493	.137	-.0969	.6219
		0.26 %	-.01750	.16493	.917	-.3769	.3419
		0.40 %	.19500	.16493	.260	-.1644	.5544
	0.13 %	0 %	-.26250	.16493	.137	-.6219	.0969
		0.26 %	-.28000	.16493	.115	-.6394	.0794
		0.40 %	-.06750	.16493	.690	-.4269	.2919
	0.26 %	0 %	.01750	.16493	.917	-.3419	.3769
		0.13 %	.28000	.16493	.115	-.0794	.6394
		0.40 %	.21250	.16493	.222	-.1469	.5719
	0.40 %	0 %	-.19500	.16493	.260	-.5544	.1644
		0.13 %	.06750	.16493	.690	-.2919	.4269
		0.26 %	-.21250	.16493	.222	-.5719	.1469
Gaya (kN)	0 %	0.13 %	.02000	.01099	.094	-.0040	.0440
		0.26 %	-.02000	.01099	.094	-.0440	.0040
		0.40 %	.01000	.01099	.381	-.0140	.0340
	0.13 %	0 %	-.02000	.01099	.094	-.0440	.0040
		0.26 %	-.04000*	.01099	.003	-.0640	-.0160
		0.40 %	-.01000	.01099	.381	-.0340	.0140
	0.26 %	0 %	.02000	.01099	.094	-.0040	.0440
		0.13 %	.04000*	.01099	.003	.0160	.0640
		0.40 %	.03000*	.01099	.018	.0060	.0540
	0.40 %	0 %	-.01000	.01099	.381	-.0340	.0140
		0.13 %	.01000	.01099	.381	-.0140	.0340
		0.26 %	-.03000*	.01099	.018	-.0540	-.0060
Hasil perhitungan kekuatan transversal	0 %	0.13 %	5.22750	6.66207	.448	-9.2879	19.7429
		0.26 %	-7.84500	6.66207	.262	-22.3604	6.6704
		0.40 %	-1.14750	6.66207	.866	-15.6629	13.3679
	0.13 %	0 %	-5.22750	6.66207	.448	-19.7429	9.2879
		0.26 %	-13.07250	6.66207	.073	-27.5879	1.4429
		0.40 %	-6.37500	6.66207	.357	-20.8904	8.1404
	0.26 %	0 %	7.84500	6.66207	.262	-6.6704	22.3604
		0.13 %	13.07250	6.66207	.073	-1.4429	27.5879
		0.40 %	6.69750	6.66207	.335	-7.8179	21.2129
	0.40 %	0 %	1.14750	6.66207	.866	-13.3679	15.6629
		0.13 %	6.37500	6.66207	.357	-8.1404	20.8904
		0.26 %	-6.69750	6.66207	.335	-21.2129	7.8179

*. The mean difference is significant at the .05 level.



LABORATORIUM BAHAN TEKNIK
DEPARTEMEN TEKNIK MESIN SEKOLAH VOKASI
UNIVERSITAS GADJAH MADA

HASIL PENGUJIAN BENDING

No. 219 / P.Bnd / BT.DTM / 2017

Spesimen Komposit Acrylic Resin + kitosan

No.	Variasi Konsentrasi		Lebar (mm)	Tebal (mm)	Tegangan Bending (MPa)	Gaya (kN)	Pergerakan loading nose (ΔL max) (mm)
1	0%	1	9.88	3.02	66.59	0.10	2.56
2		2	9.79	3.15	49.41	0.08	1.86
3		3	9.76	3.63	46.65	0.10	1.67
4		4	9.66	3.34	50.11	0.09	1.41
5	0.13%	1	9.45	2.78	49.29	0.06	2.76
6		2	9.68	3.35	55.23	0.10	1.56
7		3	10.26	3.06	43.72	0.07	2.29
8		4	9.87	2.90	43.37	0.06	2.75
9	0.26%	1	9.90	3.19	59.56	0.10	2.08
10		2	10.02	3.28	55.66	0.10	1.99
11		3	10.41	3.28	75.00	0.14	2.54
12		4	10.27	3.46	53.68	0.11	1.93
13	0.40%	1	9.86	2.79	62.54	0.08	2.88
14		2	9.97	3.18	59.51	0.10	2.63
15		3	9.91	3.42	36.23	0.07	1.85
16		4	9.25	2.97	58.83	0.08	2.94

Keterangan :

1. Pengujian mengacu pada standar ASTM D 790
2. Pengujian dilakukan pada tanggal 07 Desember 2017



Yogyakarta, 11 Desember 2017
Staf Laboratorium Bahan Teknik

Puji Priyana, SST.
NIP. 196704101999031002

Lembar asli, tidak untuk digandakan



UMY

UNIVERSITAS
MUHAMMADIYAH
YOGYAKARTA
Unggul & Islami

FAKULTAS
KEDOKTERAN DAN
ILMU KESEHATAN

Nomor : 049/EP-FKIK-UMY/I/2018

KETERANGAN LOLOS UJI ETIK **ETHICAL APPROVAL**

Komite Etik Penelitian Fakultas Kedokteran dan Ilmu Kesehatan Universitas Muhammadiyah Yogyakarta dalam upaya melindungi hak asasi dan kesejahteraan responden/subyek penelitian, telah mengkaji dengan teliti protokol berjudul :

The Ethics Committee of the Faculty of Medicine and Health Sciences, University of Muhammadiyah Yogyakarta, with regards of the protection of human rights and welfare in research, has carefully reviewed the research protocol entitled :


“Pengaruh Kadar Kitosan dalam Resin Akrilik terhadap Kekuatan Transversal”

Peneliti Utama : Widia Dwi Rahma
Principal Investigator

Nama Institusi : Program Studi Kedokteran Gigi FKIK UMY
Name of the Institution

Negara : Indonesia
Country

Dan telah menyetujui protokol tersebut diatas.
And approved the above-mentioned protocol.

Yogyakarta, 03 Februari 2018
Ketua
Chairman

Dr. dr. Titiek Hidayati, M.Kes.,
FISPH., FISCM.

***Peneliti Berkewajiban :**

1. Menjaga kerahasiaan identitas subyek penelitian
2. Memberitahukan status penelitian apabila :
 - a. Setelah masa berlakunya keterangan lolos uji etik, penelitian masih belum selesai, dalam hal ini *ethical clearance* harus diperpanjang
 - b. Penelitian berhenti di tengah jalan
3. Melaporkan kejadian serius yang tidak diinginkan (*serious adverse events*)
4. Peneliti tidak boleh melakukan tindakan apapun pada responden/subyek sebelum penelitian lolos uji etik

ADDRESS

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CONTACT

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