

LAMPIRAN 1. Hasil Pengamatan Suhu dan RH Selama Penyimpanan

No	Tanggal	Jam	Suhu (°C)	RH (%)
1	10-Des-02	09.00	37	62
		15.00	36	61
2	11-Des-02	09.00	38	63
		15.00	38	63
3	12-Des-02	09.00	38	63
		15.00	37	62
4	13-Des-02	09.00	38	68
		15.00	37.5	65
5	14-Des-02	09.00	37.5	65
		15.00	38	63
6	16-Des-02	09.00	38	68
		15.00	37.5	65
7	17-Des-02	09.00	38	63
		15.00	38	63
8	18-Des-02	09.00	37.5	65
		15.00	38	63
9	19-Des-02	09.00	37.5	65
		15.00	38	63
10	20-Des-02	09.00	38	68
		15.00	38	63
11	21-Des-02	09.00	38	68
		15.00	38	63
12	26-Des-02	09.00	37.5	65
		15.00	38	63
13	27-Des-02	09.00	37.5	65
		15.00	38	63
14	28-Des-02	09.00	38	68
		15.00	38	63
15	30-Des-02	09.00	37.5	65
		15.00	37	62
16	2-Jan-02	09.00	38	68
		15.00	38	63
17	3-Jan-02	09.00	36	67
		15.00	36	61
18	4-Jan-02	09.00	37	68
		15.00	38	63
19	6-Jan-02	09.00	37.5	65
		15.00	38	63
20	7-Jan-02	09.00	37	68
		15.00	38	63
21	8-Jan-02	09.00	37	62
		15.00	37.5	60

No	Tanggal	Jam	Suhu (°C)	RH (%)
22	9-Jan-02	09.00	38	68
		15.00	38	63
23	10-Jan-02	09.00	37.5	65
		15.00	38	63
24	11-Jan-02	09.00	38	68
		15.00	38	63
25	13-Jan-02	09.00	36	67
		15.00	37.5	65
26	14-Jan-02	09.00	37.5	71
		15.00	38	68
27	15-Jan-02	09.00	38	68
		15.00	38	63
28	16-Jan-02	09.00	38	68
		15.00	38	63
29	17-Jan-02	09.00	37	62
		15.00	36	61
30	18-Jan-02	09.00	37	62
		15.00	36	61
31	20-Jan-02	09.00	35	67
		15.00	35.5	64
32	21-Jan-02	09.00	37.5	65
		15.00	37.5	65
33	22-Jan-02	09.00	37	68
		15.00	37	62
34	23-Jan-02	09.00	37.5	71
		15.00	38	63
35	24-Jan-02	09.00	37.5	65
		15.00	38	63
36	25-Jan-02	09.00	37	68
		15.00	37.5	65
37	27-Jan-02	09.00	36	67
		15.00	36	61
38	28-Jan-02	09.00	36	67
		15.00	37	62
39	29-Jan-02	09.00	37	68
		15.00	37	62
40	30-Jan-02	09.00	36	67
		15.00	37.5	65
41	31-Jan-02	09.00	36	67
		15.00	37.5	65
42	3-Feb-02	09.00	36	67
		15.00	38	63

LANJUTAN LAMPIRAN 1

No	Tanggal	Jam	Suhu (°C)	RH (%)
43	4-Feb-02	09.00	35	67
		15.00	35	61
44	5-Feb-02	09.00	37	68
		15.00	37	68
45	6-Feb-02	09.00	37.5	71
		15.00	37.5	65
46	7-Feb-02	09.00	37.5	71
		15.00	37.5	65
47	8-Feb-02	09.00	38	63
		15.00	38	63
48	10-Feb-02	09.00	37	68
		15.00	37.5	65
49	11-Feb-02	09.00	37	68
		15.00	37.5	65
50	13-Feb-02	09.00	37.5	65
		15.00	38	63
51	14-Feb-02	09.00	38	63
		15.00	38	63
52	15-Feb-02	09.00	37.5	65
		15.00	37.5	60
53	17-Feb-02	09.00	37	62
		15.00	36	61
54	18-Feb-02	09.00	37	68
		15.00	37	68
55	19-Feb-02	09.00	38	68
		15.00	38	63
56	20-Feb-02	09.00	37.5	65
		15.00	38	63
57	21-Feb-02	09.00	37	68
		15.00	38	63
58	22-Feb-02	09.00	37	68
		15.00	37.5	65
59	24-Feb-02	09.00	36	67
		15.00	36	61
60	25-Feb-02	09.00	37.5	65
		15.00	37	62
61	26-Feb-02	09.00	37.5	71
		15.00	37.5	65
62	27-Feb-02	09.00	37	62
		15.00	37	62
63	28-Feb-02	09.00	38	63
		15.00	38	63
64	1-Mar-02	09.00	38	68
		15.00	38	63

No	Tanggal	Jam	Suhu (°C)	RH (%)
65	5-Mar-02	09.00	37	68
		15.00	37	62
66	6-Mar-02	09.00	37	68
		15.00	37	62
67	7-Mar-02	09.00	37	62
		15.00	37.5	60
68	8-Mar-02	09.00	38	63
		15.00	38	63
69	10-Mar-02	09.00	36	61
		15.00	37.5	60
70	11-Mar-02	09.00	37	68
		15.00	37	68
71	12-Mar-02	09.00	37	68
		15.00	37	68
72	13-Mar-02	09.00	37	62
		15.00	37	62
73	14-Mar-02	09.00	38	68
		15.00	38	63
74	17-Mar-02	09.00	35	67
		15.00	36	67
75	18-Mar-02	09.00	37	68
		15.00	37	62
76	19-Mar-02	09.00	36	67
		15.00	37	62
77	20-Mar-02	09.00	37	68
		15.00	37	68
78	21-Mar-02	09.00	36	67
		15.00	37	62
79	24-Mar-02	09.00	36	67
		15.00	37	62
80	25-Mar-02	09.00	37	68
		15.00	37	68
81	26-Mar-02	09.00	37	68
		15.00	37	62
82	27-Mar-02	09.00	36	67
		15.00	37	62

Keterangan :**Range suhu : 35 – 38 °C****Range RH : 60 – 71 %****Suhu Rata-rata : 37,25 °C****RH Rata-rata : 64,83 %**

LAMPIRAN 2. Kuisisioner Uji Sensoris Ekstrudat

Kuisisioner Untuk Pengujian Ekstrudat

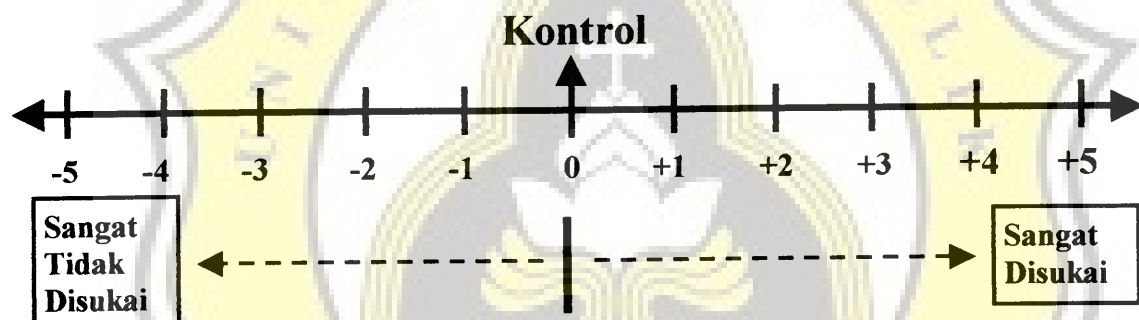
Nama :

Tanggal :

Umur :

Jenis Kelamin : L / P

Anda diminta tolong untuk menguji beberapa macam produk ekstrudat dan membandingkan dengan kontrol. Isilah kolom dibawah ini dengan kriteria-kriteria yang sesuai dengan pendapat Anda. **(TERIMA KASIH ATAS PARTISIPASINYA).**



NOMER SAMPEL	PENAMPILAN KESELURUHAN	WARNA	AROMA	KERENYAHAN	RASA

Keterangan / Saran :

LAMPIRAN 3. Analisa Data Pengukuran Kadar Air Ekstrudat

Data Pengukuran Kadar Air Ekstrudat

Perlakuan	Ulangan	Kadar Air (%)	Perlakuan	Ulangan	Kadar Air (%)
0% PP 0M	1	2,16	0% PB 0M	1	2,16
	2	2,06		2	2,06
	3	2,22		3	2,22
5% PP 0M	1	2,31	5% PB 0M	1	2,31
	2	2,29		2	2,29
	3	2,37		3	2,37
10% PP 0M	1	2,36	10% PB 0M	1	2,36
	2	2,42		2	2,42
	3	2,34		3	2,34
0% PP 7M	1	5,44	0% PB 7M	1	3,58
	2	5,41		2	3,52
	3	5,35		3	3,46
5% PP 7M	1	5,66	5% PB 7M	1	3,95
	2	5,74		2	4,03
	3	5,72		3	3,84
10% PP 7M	1	5,89	10% PB 7M	1	3,87
	2	5,79		2	3,99
	3	5,71		3	3,86
0% PP 14M	1	8,32	0% PB 14M	1	4,59
	2	8,21		2	4,63
	3	8,40		3	4,68
5% PP 14M	1	8,62	5% PB 14M	1	4,78
	2	8,65		2	4,87
	3	8,72		3	4,92
10% PP 14M	1	8,94	10% PB 14M	1	4,85
	2	9,05		2	4,88
	3	8,88		3	4,94

Uji Normalitas Data Pengukuran Kadar Air Ekstrudat

Descriptives

		Statistic	Std. Error	
Kadar Air 2	Mean	.9041	.03987	
	95% Confidence Interval for Mean	Lower Bound	.8231	
		Upper Bound	.9850	
	5% Trimmed Mean	.8957		
	Median	.8926		
	Variance	.057		
	Std. Deviation	.23919		
	Minimum	.58		
	Maximum	1.39		
	Range	.81		
	Interquartile Range	.4394		
	Skewness	.334	.393	
	Kurtosis	-.740	.768	

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Kadar Air 2	.132	36	.113	.931	36	.027

a. Lilliefors Significance Correction

LANJUTAN LAMPIRAN 3.

Hasil Analisa Anova Dua Arah Peningkatan Data Pengukuran Kadar Air Ekstrudat (Dibandingkan Data 0 Minggu)

Between-Subjects Factors

		Value Label	N
Kemasan	1.00	Polypropilene	18
	2.00	Polycellonium Bag	18
Perlakuan	1.00	0%	12
	2.00	5%	12
	3.00	10%	12
Umur Simpan	2.00	7M	18
	3.00	14M	18

Descriptive Statistics

Dependent Variable: Kadar Air 2

Kemasan	Perlakuan	Umur Simpan	Mean	Std. Deviation	N
Polypropilene	0%	7M	.8544	.00624	3
		14M	.6151	.00472	3
		Total	.7348	.13116	6
	5%	7M	.8156	.00567	3
		14M	.5980	.00222	3
		Total	.7068	.11927	6
	10%	7M	.8060	.01047	3
		14M	.5846	.00403	3
		Total	.6953	.12147	6
	Total	7M	.8253	.02320	9
		14M	.5992	.01366	9
		Total	.7123	.11779	18
Polycellonium Bag	0%	7M	1.3574	.03125	3
		14M	.9854	.00957	3
		Total	1.1714	.20477	6
	5%	7M	1.1742	.03669	3
		14M	.9395	.01275	3
		Total	1.0569	.13089	6
	10%	7M	1.1846	.02625	3
		14M	.9339	.00843	3
		Total	1.0593	.13839	6
	Total	7M	1.2387	.09322	9
		14M	.9530	.02608	9
		Total	1.0958	.16133	18
Total	0%	7M	1.1059	.27622	6
		14M	.8003	.20294	6
		Total	.9531	.28085	12
	5%	7M	.9949	.19781	6
		14M	.7687	.18724	6
		Total	.8818	.21835	12
	10%	7M	.9953	.20816	6
		14M	.7593	.19145	6
		Total	.8773	.22704	12
	Total	7M	1.0320	.22267	18
		14M	.7761	.18311	18
		Total	.9041	.23919	36

LANJUTAN LAMPIRAN 3.

Levene's Test of Equality of Error Variances

Dependent Variable: Kadar Air 2

F	df1	df2	Sig.
1.433	11	24	.222

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design:

Intercept+KEMASAN+PERLAK+SIMPAN+KEMASAN *
PERLAK+KEMASAN * SIMPAN+PERLAK * SIMPAN

Tests of Between-Subjects Effects

Dependent Variable: Kadar Air 2

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.989 ^a	9	.221	436.359	.000
Intercept	29.424	1	29.424	58087.232	.000
KEMASAN	1.324	1	1.324	2614.068	.000
PERLAK	4.337E-02	2	2.169E-02	42.812	.000
SIMPAN	.590	1	.590	1163.918	.000
KEMASAN * PERLAK	1.297E-02	2	6.483E-03	12.799	.000
KEMASAN * SIMPAN	8.009E-03	1	8.009E-03	15.812	.000
PERLAK * SIMPAN	1.125E-02	2	5.625E-03	11.105	.000
Error	1.317E-02	26	5.065E-04		
Total	31.426	36			
Corrected Total	2.002	35			

a. R Squared = .993 (Adjusted R Squared = .991)

Estimated Marginal Means

Grand Mean

Dependent Variable: Kadar Air 2

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
.904	.004	.896	.912

Post Hoc Tests (Perlakuan) → Homogeneous Subsets

Kadar Air 2

Duncan^{a,b}

Perlakuan	N	Subset	
		1	2
10%	12	.8773	
5%	12	.8818	
0%	12		.9531
Sig.		.623	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 5.065E-04.

a. Uses Harmonic Mean Sample Size = 12.000.

b. Alpha = .05.

LANJUTAN LAMPIRAN 3.

Hasil Analisa Anova Satu Arah Data Pengukuran Kadar Air Ekstrudat Terhadap Perlakuan Keseluruhan (Dibandingkan Data 0 Minggu)

Descriptives

Kadar Air 2

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% PP 7M	3	.8544	.00624	.00360	.8389	.8699	.85	.86
0% PP 14M	3	.6151	.00472	.00272	.6034	.6268	.61	.62
5% PP 7M	3	.8156	.00567	.00328	.8015	.8297	.81	.82
5% PP 14M	3	.5980	.00222	.00128	.5925	.6035	.60	.60
10% PP 7M	3	.8060	.01047	.00605	.7799	.8320	.80	.82
10% PP 14M	3	.5846	.00403	.00232	.5746	.5946	.58	.59
0% PB 7M	3	1.3574	.03125	.01804	1.2797	1.4350	1.32	1.39
0% PB 14M	3	.9854	.00957	.00552	.9617	1.0092	.98	1.00
5% PB 7M	3	1.1742	.03669	.02118	1.0831	1.2654	1.14	1.21
5% PB 14M	3	.9395	.01275	.00736	.9078	.9712	.93	.95
10% PB 7M	3	1.1846	.02625	.01515	1.1194	1.2498	1.15	1.20
10% PB 14M	3	.9339	.00843	.00487	.9130	.9549	.92	.94
Total	36	.9041	.23919	.03987	.8231	.9850	.58	1.39

Test of Homogeneity of Variances

Kadar Air 2

Levene Statistic	df1	df2	Sig.
2.881	11	24	.015

ANOVA

Kadar Air 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.995	11	.181	611.331	.000
Within Groups	.007	24	.000		
Total	2.002	35			

Post Hoc Tests → Homogeneous Subsets

Kadar Air 2

Duncan^a

Perlakuan Keseluruhan	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
10% PP 14M	3	.5846							
5% PP 14M	3	.5980	.5980						
0% PP 14M	3		.6151						
10% PP 7M	3			.8060					
5% PP 7M	3			.8156					
0% PP 7M	3				.8544				
10% PB 14M	3					.9339			
5% PB 14M	3					.9395			
0% PB 14M	3						.9854		
5% PB 7M	3							1.174	
10% PB 7M	3							1.185	
0% PB 7M	3								1.357
Sig.		.350	.235	.498	1.000	.695	1.000	.468	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LANJUTAN LAMPIRAN 3.

Hasil Analisa Anova Satu Arah Data Pengukuran Kadar Air Ekstrudat Terhadap Perlakuan Kemasan Polypropilene (Dibandingkan Data 0 Minggu)
Descriptives
Kadar Air 2

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 7M	3	.8544	.00624	.00360	.8389	.8699	.85	.86
0% 14M	3	.6151	.00472	.00272	.6034	.6268	.61	.62
5% 7M	3	.8156	.00567	.00328	.8015	.8297	.81	.82
5% 14M	3	.5980	.00222	.00128	.5925	.6035	.60	.60
10% 7M	3	.8060	.01047	.00605	.7799	.8320	.80	.82
10% 14M	3	.5846	.00403	.00232	.5746	.5946	.58	.59
Total	18	.7123	.11779	.02776	.6537	.7709	.58	.86

Test of Homogeneity of Variances
Kadar Air 2

Levene Statistic	df1	df2	Sig.
.928	5	12	.497

ANOVA
Kadar Air 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.235	5	.047	1260.695	.000
Within Groups	.000	12	.000		
Total	.236	17			

Post Hoc Tests → Homogeneous Subsets
Kadar Air 2
Duncan^a

Kemasan Polypropilene	N	Subset for alpha = .05				
		1	2	3	4	5
10% 14M	3	.5846				
5% 14M	3		.5980			
0% 14M	3			.6151		
10% 7M	3				.8060	
5% 7M	3				.8156	
0% 7M	3					.8544
Sig.		1.000	1.000	1.000	.076	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LANJUTAN LAMPIRAN 3.

Hasil Analisa Anova Satu Arah Data Pengukuran Kadar Air Ekstrudat Terhadap Perlakuan Kemasan *Polycellonium Bag* (Dibandingkan Data 0 Minggu)

Descriptives

Kadar Air 2

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 7M	3	1.3574	.03125	.01804	1.2797	1.4350	1.32	1.39
0% 14M	3	.9854	.00957	.00552	.9617	1.0092	.98	1.00
5% 7M	3	1.1742	.03669	.02118	1.0831	1.2654	1.14	1.21
5% 14M	3	.9395	.01275	.00736	.9078	.9712	.93	.95
10% 7M	3	1.1846	.02625	.01515	1.1194	1.2498	1.15	1.20
10% 14M	3	.9339	.00843	.00487	.9130	.9549	.92	.94
Total	18	1.0958	.16133	.03803	1.0156	1.1761	.92	1.39

Test of Homogeneity of Variances

Kadar Air 2

Levene Statistic	df1	df2	Sig.
1.681	5	12	.213

ANOVA

Kadar Air 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.436	5	.087	156.734	.000
Within Groups	.007	12	.001		
Total	.442	17			

Post Hoc Tests → Homogeneous Subsets

Kadar Air 2

Duncan^a

Kemasan Polycellonium Bag	N	Subset for alpha = .05			
		1	2	3	4
10% 14M	3	.9339			
5% 14M	3	.9395			
0% 14M	3		.9854		
5% 7M	3			1.1742	
10% 7M	3			1.1846	
0% 7M	3				1.3574
Sig.		.777	1.000	.600	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 4. Analisa Data Pengukuran Angka TBA Ekstrudat

Data Pengukuran Angka TBA Ekstrudat

Perlakuan	Ulangan	Angka TBA	Perlakuan	Ulangan	Angka TBA
0% PP 0M	1	0,078	0% PB 0M	1	0,078
	2	0,062		2	0,062
	3	0,094		3	0,094
5% PP 0M	1	0,117	5% PB 0M	1	0,117
	2	0,140		2	0,140
	3	0,125		3	0,125
10% PP 0M	1	0,172	10% PB 0M	1	0,172
	2	0,156		2	0,156
	3	0,140		3	0,140
0% PP 7M	1	0,468	0% PB 7M	1	0,328
	2	0,507		2	0,312
	3	0,484		3	0,351
5% PP 7M	1	0,936	5% PB 7M	1	0,499
	2	0,905		2	0,523
	3	0,920		3	0,507
10% PP 7M	1	1,069	10% PB 7M	1	0,546
	2	1,053		2	0,585
	3	1,014		3	0,562
0% PP 14M	1	0,741	0% PB 14M	1	0,445
	2	0,764		2	0,429
	3	0,749		3	0,452
5% PP 14M	1	1,661	5% PB 14M	1	0,874
	2	1,685		2	0,858
	3	1,677		3	0,889
10% PP 14M	1	1,794	10% PB 14M	1	0,952
	2	1,825		2	0,920
	3	1,810		3	0,936

Uji Normalitas Data Pengukuran Angka TBA Ekstrudat

Descriptives

			Statistic	Std. Error
TBA 2	Mean		2.3795	.12209
	95% Confidence Interval for Mean	Lower Bound	2.1317	
		Upper Bound	2.6274	
	5% Trimmed Mean		2.3634	
	Median		2.3986	
	Variance		.537	
	Std. Deviation		.73255	
	Minimum		1.26	
	Maximum		3.77	
	Range		2.50	
	Interquartile Range		.9227	
	Skewness		.542	.393
	Kurtosis		-.560	.768

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TBA 2	.129	36	.139	.919	36	.012

a. Lilliefors Significance Correction

LANJUTAN LAMPIRAN 4.

Hasil Analisa Anova Dua Arah Peningkatan Data Pengukuran Angka TBA Ekstrudat (Dibandingkan Data 0 Minggu)

Between-Subjects

		Value	N
Kemasan	1.00	Polypropilene	18
	2.00	Polycellonium Bag	18
Perlakuan	1.00	0%	12
	2.00	5%	12
	3.00	10%	12
Umur	2.00	7M	18
	3.00	14M	18

Descriptive Statistics

Dependent Variable: TBA 2

Kemasan	Perlakuan	Umur Simpan	Mean	Std. Deviation	N
Polypropilene	0%	7M	1.7469	.04745	3
		14M	2.2941	.02114	3
		Total	2.0205	.30150	6
	5%	7M	2.5826	.02517	3
		14M	3.5991	.01427	3
		Total	3.0908	.55706	6
	10%	7M	2.7771	.04282	3
		14M	3.7523	.01732	3
		Total	3.2647	.53496	6
	Total	7M	2.3689	.47522	9
		14M	3.2152	.69413	9
		Total	2.7920	.72291	18
Polycellonium Bag	0%	7M	1.3232	.06254	3
		14M	1.6389	.02972	3
		Total	1.4810	.17842	6
	5%	7M	1.8026	.02809	3
		14M	2.5059	.02594	3
		Total	2.1543	.38596	6
	10%	7M	1.9241	.04310	3
		14M	2.6076	.02493	3
		Total	2.2658	.37570	6
	Total	7M	1.6833	.27814	9
		14M	2.2508	.46161	9
		Total	1.9670	.47110	18
Total	0%	7M	1.5350	.23737	6
		14M	1.9665	.35961	6
		Total	1.7508	.36765	12
	5%	7M	2.1926	.42785	6
		14M	3.0525	.59904	6
		Total	2.6225	.66931	12
	10%	7M	2.3506	.46878	6
		14M	3.1800	.62727	6
		Total	2.7653	.68289	12
	Total	7M	2.0261	.51681	18
		14M	2.7330	.75709	18
		Total	2.3795	.73255	36

LANJUTAN LAMPIRAN 4.

Levene's Test of Equality of Error Variances^a

Dependent Variable: TBA 2

F	df1	df2	Sig.
.986	11	24	.485

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design:

Intercept+KEMASAN+PERLAK+SIMPAN+KEMASAN *
PERLAK+KEMASAN * SIMPAN+PERLAK * SIMPAN

Tests of Between-Subjects Effects

Dependent Variable: TBA 2

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18.751 ^a	9	2.083	1719.159	.000
Intercept	203.838	1	203.838	168200.1	.000
KEMASAN	6.125	1	6.125	5054.188	.000
PERLAK	7.238	2	3.619	2986.234	.000
SIMPAN	4.498	1	4.498	3711.233	.000
KEMASAN * PERLAK	.373	2	.186	153.693	.000
KEMASAN * SIMPAN	.175	1	.175	144.298	.000
PERLAK * SIMPAN	.343	2	.171	141.429	.000
Error	3.151E-02	26	1.212E-03		
Total	222.620	36			
Corrected Total	18.782	35			

a. R Squared = .998 (Adjusted R Squared = .998)

Estimated Marginal Means

Grand Mean

Dependent Variable: TBA 2

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
2.380	.006	2.368	2.391

Post Hoc Tests (Perlakuan) → Homogeneous Subsets

TBA 2

Duncan^{a,b}

Perlakuan	N	Subset		
		1	2	3
0%	12	1.7508		
5%	12		2.6225	
10%	12			2.7653
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 1.212E-03.

a. Uses Harmonic Mean Sample Size = 12.000.

b. Alpha = .05.

LANJUTAN LAMPIRAN 4.

Hasil Analisa Anova Satu Arah Data Pengukuran Angka TBA Ekstrudat Terhadap Perlakuan Keseluruhan (Dibandingkan Data 0 Minggu)

Descriptives

TBA 2

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% PP 7M	3	1.7469	.04745	.02740	1.6291	1.8648	1.70	1.80
0% PP 14M	3	2.2941	.02114	.01220	2.2416	2.3466	2.28	2.32
5% PP 7M	3	2.5826	.02517	.01453	2.5200	2.6451	2.56	2.61
5% PP 14M	3	3.5991	.01427	.00824	3.5636	3.6345	3.58	3.61
10% PP 7M	3	2.7771	.04282	.02472	2.6707	2.8835	2.73	2.81
10% PP 14M	3	3.7523	.01732	.01000	3.7093	3.7953	3.73	3.77
0% PB 7M	3	1.3232	.06254	.03611	1.1678	1.4785	1.26	1.39
0% PB 14M	3	1.6389	.02972	.01716	1.5651	1.7128	1.61	1.66
5% PB 7M	3	1.8026	.02809	.01622	1.7329	1.8724	1.78	1.83
5% PB 14M	3	2.5059	.02594	.01498	2.4415	2.5703	2.48	2.53
10% PB 7M	3	1.9241	.04310	.02489	1.8170	2.0312	1.88	1.97
10% PB 14M	3	2.6076	.02493	.01439	2.5457	2.6695	2.58	2.63
Total	36	2.3795	.73255	.12209	2.1317	2.6274	1.26	3.77

Test of Homogeneity of Variances

TBA 2

Levene Statistic	df1	df2	Sig.
1.053	11	24	.435

ANOVA

TBA 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.753	11	1.705	1420.221	.000
Within Groups	.029	24	.001		
Total	18.782	35			

Post Hoc Tests → Homogeneous Subsets

TBA 2

Duncan^a

Perlakuan Keseluruhan	N	Subset for alpha = .05									
		1	2	3	4	5	6	7	8	9	10
0% PB 7M	3	1.3232									
0% PB 14M	3		1.6389								
0% PP 7M	3			1.7469							
5% PB 7M	3			1.8026							
10% PB 7M	3				1.9241						
0% PP 14M	3					2.2941					
5% PB 14M	3						2.5059				
5% PP 7M	3							2.5826			
10% PB 14M	3							2.6076			
10% PP 7M	3								2.7771		
5% PP 14M	3									3.5991	
10% PP 14M	3										3.7523
Sig.		1.000	1.000	.061	1.000	1.000	1.000	.385	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LANJUTAN LAMPIRAN 4.

Hasil Analisa Anova Satu Arah Data Pengukuran Angka TBA Ekstrudat Terhadap Perlakuan Kemasan *Polypropilene* (Dibandingkan Data 0 Minggu)

Descriptives

TBA 2

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 7M	3	1.7469	.04745	.02740	1.6291	1.8648	1.70	1.80
0% 14M	3	2.2941	.02114	.01220	2.2416	2.3466	2.28	2.32
5% 7M	3	2.5826	.02517	.01453	2.5200	2.6451	2.56	2.61
5% 14M	3	3.5991	.01427	.00824	3.5636	3.6345	3.58	3.61
10% 7M	3	2.7771	.04282	.02472	2.6707	2.8835	2.73	2.81
10% 14M	3	3.7523	.01732	.01000	3.7093	3.7953	3.73	3.77
Total	18	2.7920	.72291	.17039	2.4325	3.1515	1.70	3.77

Test of Homogeneity of Variances

TBA 2

Levene Statistic	df1	df2	Sig.
1.391	5	12	.295

ANOVA

TBA 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.873	5	1.775	1878.032	.000
Within Groups	.011	12	.001		
Total	8.884	17			

Post Hoc Tests → Homogeneous Subsets

TBA 2

Duncan^a

Kemasan Polypropilene	N	Subset for alpha = .05					
		1	2	3	4	5	6
0% 7M	3	1.7469					
0% 14M	3		2.2941				
5% 7M	3			2.5826			
10% 7M	3				2.7771		
5% 14M	3					3.5991	
10% 14M	3						3.7523
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LANJUTAN LAMPIRAN 4.

Hasil Analisa Anova Satu Arah Data Pengukuran Kadar Air Ekstrudat Terhadap Perlakuan Kemasan Polycellonium Bag (Dibandingkan Data 0 Minggu)
Descriptives

TBA 2

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 7M	3	1.3232	.06254	.03611	1.1678	1.4785	1.26	1.39
0% 14M	3	1.6389	.02972	.01716	1.5651	1.7128	1.61	1.66
5% 7M	3	1.8026	.02809	.01622	1.7329	1.8724	1.78	1.83
5% 14M	3	2.5059	.02594	.01498	2.4415	2.5703	2.48	2.53
10% 7M	3	1.9241	.04310	.02489	1.8170	2.0312	1.88	1.97
10% 14M	3	2.6076	.02493	.01439	2.5457	2.6695	2.58	2.63
Total	18	1.9670	.47110	.11104	1.7328	2.2013	1.26	2.63

Test of Homogeneity of Variances

TBA 2

Levene Statistic	df1	df2	Sig.
.892	5	12	.516

ANOVA

TBA 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.755	5	.751	515.890	.000
Within Groups	.017	12	.001		
Total	3.773	17			

Post Hoc Tests → Homogeneous Subsets

TBA 2

Duncan^a

Kemasan Polycellonium Bag	N	Subset for alpha = .05					
		1	2	3	4	5	6
0% 7M	3	1.3232					
0% 14M	3		1.6389				
5% 7M	3			1.8026			
10% 7M	3				1.9241		
5% 14M	3					2.5059	
10% 14M	3						2.6076
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LANJUTAN LAMPIRAN 4.

Hasil Analisa Korelasi Data Pengukuran Kadar Air dan Angka TBA Ekstrudat

Correlations

		Kemasan	Perlakuan	Umur Simpan	Kadar Air	TBA
Kemasan	Pearson Correlation	1	.000	.000	-.431**	-.332*
	Sig. (2-tailed)	.	1.000	1.000	.001	.014
	N	54	54	54	54	54
Perlakuan	Pearson Correlation	.000	1	.000	.066	.335*
	Sig. (2-tailed)	1.000	.	1.000	.635	.013
	N	54	54	54	54	54
Umur Simpan	Pearson Correlation	.000	.000	1	.823**	.773**
	Sig. (2-tailed)	1.000	1.000	.	.000	.000
	N	54	54	54	54	54
Kadar Air	Pearson Correlation	-.431**	.066	.823**	1	.907**
	Sig. (2-tailed)	.001	.635	.000	.	.000
	N	54	54	54	54	54
TBA	Pearson Correlation	-.332*	.335*	.773**	.907**	1
	Sig. (2-tailed)	.014	.013	.000	.000	.
	N	54	54	54	54	54

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

LAMPIRAN 5. Analisa Data Pengukuran Pengembangan Membujur (*Axial Expansion*) Ekstrudat

Hasil Analisa Anova Dua Arah Data Pengukuran Pengembangan Membujur (*Axial Expansion*) Ekstrudat

Between-Subjects Factors

		Value Label	N
Kemasan	1.00	Polypropilene	900
	2.00	Polycellonium Bag	900
Perlakuan	1.00	0%	600
	2.00	5%	600
	3.00	10%	600
		Total	600
Umur Simpan	1.00	0M	600
	2.00	7M	600
	3.00	14M	600

Descriptive Statistics

Dependent Variable: Axial Expansion

Kemasan	Perlakuan	Umur Simpan	Mean	Std. Deviation	N
Polypropilene	0%	0M	3.53435	.263183	100
		7M	3.51065	.272832	100
		14M	3.50189	.267464	100
		Total	3.51563	.267311	300
	5%	0M	2.66515	.333183	100
		7M	2.65211	.326210	100
		14M	2.64789	.277354	100
		Total	2.65505	.312273	300
	10%	0M	2.24151	.330043	100
		7M	2.19280	.341977	100
		14M	2.18862	.297442	100
		Total	2.20764	.323512	300
	Total	0M	2.81367	.621552	300
		7M	2.78519	.630800	300
		14M	2.77947	.612815	300
Total		2.79277	.621254	900	
Polycellonium Bag	0%	0M	3.53435	.263183	100
		7M	3.53202	.256401	100
		14M	3.52703	.284861	100
		Total	3.53113	.267541	300
	5%	0M	2.66515	.333183	100
		7M	2.65771	.289930	100
		14M	2.65956	.291062	100
		Total	2.66081	.304382	300
	10%	0M	2.24151	.330043	100
		7M	2.22020	.323383	100
		14M	2.21382	.338648	100
		Total	2.22518	.329177	300
	Total	0M	2.81367	.621552	300
		7M	2.80331	.618572	300
		14M	2.80014	.625090	300
Total		2.80571	.621079	900	
Total	0%	0M	3.53435	.262521	200
		7M	3.52134	.264295	200
		14M	3.51446	.275892	200
		Total	3.52338	.267316	600
	5%	0M	2.66515	.332345	200
		7M	2.65491	.307840	200
		14M	2.65373	.283636	200
		Total	2.65793	.308109	600
	10%	0M	2.24151	.329213	200
		7M	2.20650	.332256	200
		14M	2.20122	.317103	200
		Total	2.21641	.326202	600
	Total	0M	2.81367	.621033	600
		7M	2.79425	.624260	600
		14M	2.78980	.618553	600
Total		2.79924	.621028	1800	

LANJUTAN LAMPIRAN 5.

Levene's Test of Equality of Error Variances

Dependent Variable: Axial Expansion

F	df1	df2	Sig.
1.996	17	1782	.009

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Design:
Intercept+KEMASAN+PERLAK+SIMPAN+KEMASAN *
PERLAK+KEMASAN * SIMPAN+PERLAK * SIMPAN

Tests of Between-Subjects Effects

Dependent Variable: Axial Expansion

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	530.798 ^a	13	40.831	447.297	.000
Intercept	14104.340	1	14104.340	154512.1	.000
KEMASAN	7.525E-02	1	7.525E-02	.824	.364
PERLAK	530.425	2	265.212	2905.383	.000
SIMPAN	.193	2	9.667E-02	1.059	.347
KEMASAN * PERLAK	1.189E-02	2	5.945E-03	.065	.937
KEMASAN * SIMPAN	3.811E-02	2	1.905E-02	.209	.812
PERLAK * SIMPAN	5.506E-02	4	1.377E-02	.151	.963
Error	163.032	1786	9.128E-02		
Total	14798.170	1800			
Corrected Total	693.830	1799			

- a. R Squared = .765 (Adjusted R Squared = .763)

Estimated Marginal Means

Grand Mean

Dependent Variable: Axial Expansion

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
2.799	.007	2.785	2.813

Post Hoc Tests (Perlakuan) → Homogeneous Subsets

Axial Expansion

Duncan^{a,b}

Perlakuan	N	Subset		
		1	2	3
10%	600	2.21641		
5%	600		2.65793	
0%	600			3.52338
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 9.128E-02.

- a. Uses Harmonic Mean Sample Size = 600.000.
b. Alpha = .05.

Post Hoc Test (Umur Simpan) → Homogeneous Subsets

Axial Expansion

Duncan^{a,b}

Umur Simpan	N	Subset
		1
14M	600	2.78980
7M	600	2.79425
0M	600	2.81367
Sig.		.199

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 9.128E-02.

- a. Uses Harmonic Mean Sample Size = 600.000.
b. Alpha = .05.

LANJUTAN LAMPIRAN 5.

Hasil Analisa Anova Satu Arah Data Pengukuran Pengembangan Membujur (Axial Expansion) Ekstrudat Terhadap Perlakuan Keseluruhan

Descriptives

Axial Expansion	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
					0% PP 0M	100		
0% PP 7M	100	3.51065	.272832	.02728	3.45651	3.56479	3.043	3.977
0% PP 14M	100	3.50189	.267464	.02675	3.44882	3.55496	3.033	3.970
5% PP 0M	100	2.66515	.333183	.03332	2.59904	2.73126	2.123	3.417
5% PP 7M	100	2.65211	.326210	.03262	2.58738	2.71684	2.120	3.427
5% PP 14M	100	2.64789	.277354	.02774	2.59286	2.70292	2.153	3.530
10% PP 0M	100	2.24151	.330043	.03300	2.17602	2.30700	1.517	2.873
10% PP 7M	100	2.19280	.341977	.03420	2.12494	2.26066	1.520	2.763
10% PP 14M	100	2.18862	.297442	.02974	2.12960	2.24764	1.537	2.647
0% PB 0M	100	3.53435	.263183	.02632	3.48213	3.58657	3.033	3.977
0% PB 7M	100	3.53202	.256401	.02564	3.48114	3.58290	3.033	3.973
0% PB 14M	100	3.52703	.284861	.02849	3.47051	3.58355	3.033	3.977
5% PB 0M	100	2.66515	.333183	.03332	2.59904	2.73126	2.123	3.417
5% PB 7M	100	2.65771	.289930	.02899	2.60018	2.71524	2.123	3.530
5% PB 14M	100	2.65956	.291062	.02911	2.60181	2.71731	2.153	3.530
10% PB 0M	100	2.24151	.330043	.03300	2.17602	2.30700	1.517	2.873
10% PB 7M	100	2.22020	.323383	.03234	2.15603	2.28437	1.533	2.757
10% PB 14M	100	2.21382	.336648	.03366	2.14702	2.28062	1.537	2.873
Total	1800	2.79924	.621028	.01464	2.77053	2.82795	1.517	3.977

Test of Homogeneity of Variances

Axial Expansion	Levene Statistic	df1	df2	Sig.
	2.005	17	1782	.009

ANOVA

Axial Expansion	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	530.805	17	31.224	341.303	.000
Within Groups	163.025	1782	.091		
Total	693.830	1799			

Post Hoc Tests → Homogeneous Subsets

Axial Expansion

Pertakuan Keseluruhan	N	Subset for alpha = .05		
		1	2	3
10% PP 14M	100	2.18862		
10% PP 7M	100	2.19280		
10% PB 14M	100	2.21382		
10% PB 7M	100	2.22020		
10% PP 0M	100	2.24151		
10% PB 0M	100	2.24151		
5% PP 14M	100		2.64789	
5% PP 7M	100		2.65211	
5% PB 7M	100		2.65771	
5% PB 14M	100		2.65956	
5% PP 0M	100		2.66515	
5% PB 0M	100		2.66515	
0% PP 14M	100			3.50189
0% PP 7M	100			3.51065
0% PB 14M	100			3.52703
0% PB 7M	100			3.53202
0% PP 0M	100			3.53435
0% PB 0M	100			3.53435
Sig.		.289	.732	.519

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LANJUTAN LAMPIRAN 5.

**Hasil Analisa Anova Satu Arah Data Pengukuran Pengembangan Membujur
(Axial Expansion) Ekstrudat Terhadap Perlakuan Kemasan Polypropilene**
Descriptives
Axial Expansion

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 0M	100	3.5343	.26318	.02632	3.4821	3.5866	3.03	3.98
0% 7M	100	3.5107	.27283	.02728	3.4565	3.5648	3.04	3.98
0% 14M	100	3.5019	.26746	.02675	3.4488	3.5550	3.03	3.97
5% 0M	100	2.6651	.33318	.03332	2.5990	2.7313	2.12	3.42
5% 7M	100	2.6521	.32621	.03262	2.5874	2.7168	2.12	3.43
5% 14M	100	2.6479	.27735	.02774	2.5929	2.7029	2.15	3.53
10% 0M	100	2.2415	.33004	.03300	2.1760	2.3070	1.52	2.87
10% 7M	100	2.1928	.34198	.03420	2.1249	2.2607	1.52	2.76
10% 14M	100	2.1886	.29744	.02974	2.1296	2.2476	1.54	2.65
Total	900	2.7928	.62125	.02071	2.7521	2.8334	1.52	3.98

Test of Homogeneity of Variances
Axial Expansion

Levene Statistic	df1	df2	Sig.
2.262	8	891	.021

ANOVA
Axial Expansion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	265.405	8	33.176	362.383	.000
Within Groups	81.570	891	.092		
Total	346.975	899			

Post Hoc Tests → Homogeneous Subsets
Axial Expansion
Duncan^a

Kemasan Polypropilene	N	Subset for alpha = .05		
		1	2	3
10% 14M	100	2.18862		
10% 7M	100	2.19280		
10% 0M	100	2.24151		
5% 14M	100		2.64789	
5% 7M	100		2.65211	
5% 0M	100		2.66515	
0% 14M	100			3.50189
0% 7M	100			3.51065
0% 0M	100			3.53435
Sig.		.246	.707	.479

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LANJUTAN LAMPIRAN 5.

Hasil Analisa Anova Satu Arah Data Pengukuran Pengembangan Membujur (Axial Expansion) Ekstrudat Terhadap Perlakuan Kemasan Polycellonium Bag
Descriptives
Axial Expansion

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% OM	100	3.5343	.26318	.02632	3.4821	3.5866	3.03	3.98
0% 7M	100	3.5320	.25640	.02564	3.4811	3.5829	3.03	3.97
0% 14M	100	3.5270	.28486	.02849	3.4705	3.5836	3.03	3.98
5% OM	100	2.6651	.33318	.03332	2.5990	2.7313	2.12	3.42
5% 7M	100	2.6577	.28993	.02899	2.6002	2.7152	2.12	3.53
5% 14M	100	2.6596	.29106	.02911	2.6018	2.7173	2.15	3.53
10% OM	100	2.2415	.33004	.03300	2.1760	2.3070	1.52	2.87
10% 7M	100	2.2202	.32338	.03234	2.1560	2.2844	1.53	2.76
10% 14M	100	2.2138	.33665	.03366	2.1470	2.2806	1.54	2.87
Total	900	2.8057	.62108	.02070	2.7651	2.8463	1.52	3.98

Test of Homogeneity of Variances
Axial Expansion

Levene Statistic	df1	df2	Sig.
1.996	8	891	.044

ANOVA
Axial Expansion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	265.324	8	33.166	362.784	.000
Within Groups	81.455	891	.091		
Total	346.779	899			

Post Hoc Tests → Homogeneous Subsets
Axial Expansion
Duncan^a

Kemasan Polycellonium Bag	N	Subset for alpha = .05		
		1	2	3
10% 14M	100	2.21382		
10% 7M	100	2.22020		
10% OM	100	2.24151		
5% 7M	100		2.65771	
5% 14M	100		2.65956	
5% OM	100		2.66515	
0% 14M	100			3.52703
0% 7M	100			3.53202
0% OM	100			3.53435
Sig.		.546	.871	.873

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LAMPIRAN 6. Analisa Data Pengukuran Pengembangan Melintang (Radial Expansion) Ekstrudat

Hasil Analisa Anova Dua Arah Data Pengukuran Pengembangan Melintang (Radial Expansion) Ekstrudat

Between-Subjects Factors

		Value Label	N
Kemasan	1.00	Polypropilene	900
	2.00	Polycellonium Bag	900
Perlakuan	1.00	0%	600
	2.00	5%	600
	3.00	10%	600
Umur Simpan	1.00	0M	600
	2.00	7M	600
	3.00	14M	600

Descriptive Statistics

Dependent Variable: Radial Expansion

Kemasan	Perlakuan	Umur Simpan	Mean	Std. Deviation	N
Polypropilene	0%	0M	1.83239	.157099	100
		7M	1.81553	.160044	100
		14M	1.81763	.164027	100
		Total	1.82185	.160054	300
	5%	0M	1.69874	.170617	100
		7M	1.68405	.169021	100
		14M	1.67899	.167308	100
		Total	1.68726	.168630	300
	10%	0M	1.27442	.269768	100
		7M	1.25048	.248677	100
		14M	1.24357	.250445	100
		Total	1.25616	.255958	300
Total	0M	1.60185	.314130	300	
	7M	1.58335	.311278	300	
	14M	1.58006	.314582	300	
	Total	1.58842	.313132	900	
Polycellonium Bag	0%	0M	1.83239	.157099	100
		7M	1.82988	.168402	100
		14M	1.82947	.161688	100
		Total	1.83058	.161924	300
	5%	0M	1.69874	.170617	100
		7M	1.69580	.174810	100
		14M	1.68908	.171292	100
		Total	1.69454	.171720	300
	10%	0M	1.27442	.269768	100
		7M	1.26622	.265245	100
		14M	1.25891	.243003	100
		Total	1.26652	.258810	300
Total	0M	1.60185	.314130	300	
	7M	1.59730	.317489	300	
	14M	1.59249	.311515	300	
	Total	1.59721	.314061	900	
Total	0%	0M	1.83239	.156704	200
		7M	1.82271	.164021	200
		14M	1.82355	.162560	200
		Total	1.82622	.160916	600
	5%	0M	1.69874	.170188	200
		7M	1.68992	.171608	200
		14M	1.68404	.168962	200
		Total	1.69090	.170079	600
	10%	0M	1.27442	.269089	200
		7M	1.25835	.256569	200
		14M	1.25124	.246251	200
		Total	1.26134	.257225	600
Total	0M	1.60185	.313868	600	
	7M	1.59033	.314214	600	
	14M	1.58628	.312852	600	
	Total	1.59282	.313540	1800	

LANJUTAN LAMPIRAN 6.

Levene's Test of Equality of Error Variances

Dependent Variable: Radial Expansion

F	df1	df2	Sig.
9.444	17	1782	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Design:
Intercept+KEMASAN+PERLAK+SIMPAN+KEMASAN *
PERLAK+KEMASAN * SIMPAN+PERLAK * SIMPAN

Tests of Between-Subjects Effects

Dependent Variable: Radial Expansion

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	104.527 ^a	13	8.041	198.547	.000
Intercept	4566.720	1	4566.720	112766.8	.000
KEMASAN	3.477E-02	1	3.477E-02	.859	.354
PERLAK	104.384	2	52.192	1288.791	.000
SIMPAN	7.836E-02	2	3.918E-02	.967	.380
KEMASAN * PERLAK	7.123E-04	2	3.561E-04	.009	.991
KEMASAN * SIMPAN	1.756E-02	2	8.779E-03	.217	.805
PERLAK * SIMPAN	1.147E-02	4	2.868E-03	.071	.991
Error	72.328	1786	4.050E-02		
Total	4743.575	1800			
Corrected Total	176.855	1799			

- a. R Squared = .591 (Adjusted R Squared = .588)

Estimated Marginal Means

Grand Mean

Dependent Variable: Radial Expansion

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
1.593	.005	1.584	1.602

Post Hoc Tests (Perlakuan) → Homogeneous Subsets

Radial Expansion

Duncan ^{a,b}

Perlakuan	N	Subset		
		1	2	3
10%	600	1.26134		
5%	600		1.69090	
0%	600			1.82622
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 4.050E-02.

- a. Uses Harmonic Mean Sample Size = 600.000.
b. Alpha = .05.

Post Hoc Test (Umur Simpan) → Homogeneous Subsets

Radial Expansion

Duncan ^{a,b}

Umur Simpan	N	Subset
		1
14M	600	1.58628
7M	600	1.59033
0M	600	1.60185
Sig.		.208

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 4.050E-02.

- a. Uses Harmonic Mean Sample Size = 600.000.
b. Alpha = .05.

LANJUTAN LAMPIRAN 6.

Hasil Analisa Anova Satu Arah Data Pengukuran Pengembangan Melintang (Radial Expansion) Ekstrudat Terhadap Perlakuan Keseluruhan

Descriptives

Radial Expansion	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
					0% PP 0M	100		
0% PP 7M	100	1.81553	.160044	.016004	1.78377	1.84729	1.513	2.137
0% PP 14M	100	1.81763	.164027	.016403	1.78508	1.85018	1.513	2.147
5% PP 0M	100	1.69874	.170617	.017062	1.66489	1.73259	1.423	2.037
5% PP 7M	100	1.68405	.169021	.016902	1.65051	1.71759	1.410	2.080
5% PP 14M	100	1.67899	.167308	.016731	1.64579	1.71219	1.380	2.070
10% PP 0M	100	1.27442	.269768	.026977	1.22089	1.32795	.730	1.780
10% PP 7M	100	1.25048	.248677	.024868	1.20114	1.29982	.713	1.707
10% PP 14M	100	1.24357	.250445	.025045	1.19388	1.29326	.713	1.677
0% PB 0M	100	1.83239	.157099	.015710	1.80122	1.86356	1.513	2.137
0% PB 7M	100	1.82988	.168402	.016840	1.79647	1.86329	1.530	2.157
0% PB 14M	100	1.82947	.161688	.016169	1.79739	1.86155	1.513	2.147
5% PB 0M	100	1.69874	.170617	.017062	1.66489	1.73259	1.423	2.037
5% PB 7M	100	1.69580	.174810	.017481	1.66111	1.73049	1.407	2.050
5% PB 14M	100	1.68908	.171292	.017129	1.65509	1.72307	1.413	2.037
10% PB 0M	100	1.27442	.269768	.026977	1.22089	1.32795	.730	1.780
10% PB 7M	100	1.26622	.265245	.026524	1.21359	1.31885	.713	1.773
10% PB 14M	100	1.25891	.243003	.024300	1.21069	1.30713	.713	1.780
Total	1800	1.59282	.313540	.007390	1.57832	1.60731	.713	2.157

Test of Homogeneity of Variances

Radial Expansion	Levene Statistic	df1	df2	Sig.
	9.444	17	1782	.000

ANOVA

Radial Expansion	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	104.528	17	6.149	151.491	.000
Within Groups	72.327	1782	.041		
Total	176.855	1799			

Post Hoc Tests → Homogeneous Subsets

Radial Expansion

Perlakuan Keseluruhan	N	Subset for alpha = .05		
		1	2	3
10% PP 14M	100	1.24357		
10% PP 7M	100	1.25048		
10% PB 14M	100	1.25891		
10% PB 7M	100	1.26622		
10% PP 0M	100	1.27442		
10% PB 0M	100	1.27442		
5% PP 14M	100		1.67899	
5% PP 7M	100		1.68405	
5% PB 14M	100		1.68908	
5% PB 7M	100		1.69580	
5% PP 0M	100		1.69874	
5% PB 0M	100		1.69874	
0% PP 7M	100			1.81553
0% PP 14M	100			1.81763
0% PB 14M	100			1.82947
0% PB 7M	100			1.82988
0% PP 0M	100			1.83239
0% PB 0M	100			1.83239
Sig.		.355	.556	.616

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LANJUTAN LAMPIRAN 6.

**Hasil Analisa Anova Satu Arah Data Pengukuran Pengembangan Melintang
(Radial Expansion) Ekstrudat Terhadap Perlakuan Kemasan Polypropilene**

Descriptives

Radial Expansion

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 0M	100	1.8324	.15710	.01571	1.8012	1.8636	1.51	2.14
0% 7M	100	1.8155	.16004	.01600	1.7838	1.8473	1.51	2.14
0% 14M	100	1.8176	.16403	.01640	1.7851	1.8502	1.51	2.15
5% 0M	100	1.6987	.17062	.01706	1.6649	1.7326	1.42	2.04
5% 7M	100	1.6841	.16902	.01690	1.6505	1.7176	1.41	2.08
5% 14M	100	1.6790	.16731	.01673	1.6458	1.7122	1.38	2.07
10% 0M	100	1.2744	.26977	.02698	1.2209	1.3279	.73	1.78
10% 7M	100	1.2505	.24868	.02487	1.2011	1.2998	.71	1.71
10% 14M	100	1.2436	.25045	.02504	1.1939	1.2933	.71	1.68
Total	900	1.5884	.31313	.01044	1.5679	1.6089	.71	2.15

Test of Homogeneity of Variances

Radial Expansion

Levene Statistic	df1	df2	Sig.
10.541	8	891	.000

ANOVA

Radial Expansion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	52.488	8	6.561	163.930	.000
Within Groups	35.660	891	.040		
Total	88.148	899			

Post Hoc Tests → Homogeneous Subsets

Radial Expansion

Duncan^a

Kemasan Polypropilene	N	Subset for alpha = .05		
		1	2	3
10% 14M	100	1.24357		
10% 7M	100	1.25048		
10% 0M	100	1.27442		
5% 14M	100		1.67899	
5% 7M	100		1.68405	
5% 0M	100		1.69874	
0% 7M	100			1.81553
0% 14M	100			1.81763
0% 0M	100			1.83239
Sig.		.307	.515	.579

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LANJUTAN LAMPIRAN 6.

**Hasil Analisa Anova Satu Arah Data Pengukuran Pengembangan Melintang
(Radial Expansion) Ekstrudat Terhadap Perlakuan Kemasan Polycellonium Bag**
Descriptives
Radial Expansion

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% OM	100	1.8324	.15710	.01571	1.8012	1.8636	1.51	2.14
0% 7M	100	1.8299	.16840	.01684	1.7965	1.8633	1.53	2.16
0% 14M	100	1.8295	.16169	.01617	1.7974	1.8616	1.51	2.15
5% OM	100	1.6987	.17062	.01706	1.6649	1.7326	1.42	2.04
5% 7M	100	1.6958	.17481	.01748	1.6611	1.7305	1.41	2.05
5% 14M	100	1.6891	.17129	.01713	1.6551	1.7231	1.41	2.04
10% OM	100	1.2744	.26977	.02698	1.2209	1.3279	.73	1.78
10% 7M	100	1.2662	.26524	.02652	1.2136	1.3189	.71	1.77
10% 14M	100	1.2589	.24300	.02430	1.2107	1.3071	.71	1.78
Total	900	1.5972	.31406	.01047	1.5767	1.6178	.71	2.16

Test of Homogeneity of Variances
Radial Expansion

Levene Statistic	df1	df2	Sig.
9.556	8	891	.000

ANOVA
Radial Expansion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	52.005	8	6.501	157.965	.000
Within Groups	36.667	891	.041		
Total	88.672	899			

Post Hoc Tests → Homogeneous Subsets
Radial Expansion
Duncan^a

Kemasan Polycellonium Bag	N	Subset for alpha = .05		
		1	2	3
10% 14M	100	1.25891		
10% 7M	100	1.26622		
10% OM	100	1.27442		
5% 14M	100		1.68908	
5% 7M	100		1.69580	
5% OM	100		1.69874	
0% 14M	100			1.82947
0% 7M	100			1.82988
0% OM	100			1.83239
Sig.		.614	.754	.925

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LAMPIRAN 7. Analisa Data Pengukuran Rasio Pengembangan (*Expansion Ratio*) Ekstrudat

Hasil Analisa Anova Dua Arah Data Pengukuran Rasio Pengembangan (*Expansion Ratio*) Ekstrudat.

Between-Subjects Factors

		Value Label	N
Kemasan	1.00	Polypropilene	900
	2.00	Polycellonium Bag	900
Perlakuan	1.00	0%	600
	2.00	5%	600
	3.00	10%	600
Umur	1.00	0M	600
	2.00	7M	600
Simpan	2.00	7M	600
	3.00	14M	600

Descriptive Statistics

Dependent Variable: Expansion Ratio

Kemasan	Perlakuan	Umur Simpan	Mean	Std. Deviation	N
Polypropilene	0%	0M	5.23547	.448855	100
		7M	5.18724	.457284	100
		14M	5.19326	.468671	100
		Total	5.20532	.457312	300
	5%	0M	4.85357	.487466	100
		7M	4.81156	.482926	100
		14M	4.79713	.478024	100
		Total	4.82075	.481801	300
	10%	0M	3.64121	.770820	100
		7M	3.57281	.710432	100
		14M	3.55309	.715511	100
		Total	3.58904	.731289	300
Total	0M	4.57675	.897544	300	
	7M	4.52387	.889348	300	
	14M	4.51449	.898795	300	
	Total	4.53837	.894663	900	
Polycellonium Bag	0%	0M	5.23547	.448855	100
		7M	5.22822	.481132	100
		14M	5.22711	.462026	100
		Total	5.23027	.462653	300
	5%	0M	4.85357	.487466	100
		7M	4.84514	.499476	100
		14M	4.82594	.489428	100
		Total	4.84155	.490640	300
	10%	0M	3.64121	.770820	100
		7M	3.61784	.757785	100
		14M	3.59691	.694293	100
		Total	3.61865	.739457	300
Total	0M	4.57675	.897544	300	
	7M	4.56373	.907069	300	
	14M	4.54999	.890061	300	
	Total	4.56349	.897319	900	
Total	0%	0M	5.23547	.447725	200
		7M	5.20773	.468629	200
		14M	5.21018	.464500	200
		Total	5.21779	.459775	600
	5%	0M	4.85357	.486240	200
		7M	4.82835	.490324	200
		14M	4.81153	.482759	200
		Total	4.83115	.485946	600
	10%	0M	3.64121	.768881	200
		7M	3.59532	.732990	200
		14M	3.57500	.703551	200
		Total	3.60385	.734920	600
Total	0M	4.57675	.896795	600	
	7M	4.54380	.897724	600	
	14M	4.53224	.893868	600	
	Total	4.55093	.895831	1800	

LANJUTAN LAMPIRAN 7.

Levene's Test of Equality of Error Variances

Dependent Variable: Expansion Ratio

F	df1	df2	Sig.
9.442	17	1782	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Design:
Intercept+KEMASAN+PERLAK+SIMPAN+KEMASAN *
PERLAK+KEMASAN * SIMPAN+PERLAK * SIMPAN

Tests of Between-Subjects Effects

Dependent Variable: Expansion Ratio

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	853.289 ^a	13	65.638	198.547	.000
Intercept	37279.744	1	37279.744	112767.7	.000
KEMASAN	.284	1	.284	.859	.354
PERLAK	852.122	2	426.061	1288.793	.000
SIMPAN	.640	2	.320	.968	.380
KEMASAN * PERLAK	5.841E-03	2	2.921E-03	.009	.991
KEMASAN * SIMPAN	.143	2	7.170E-02	.217	.805
PERLAK * SIMPAN	9.345E-02	4	2.336E-02	.071	.991
Error	590.432	1786	.331		
Total	38723.465	1800			
Corrected Total	1443.721	1799			

- a. R Squared = .591 (Adjusted R Squared = .588)

Estimated Marginal Means

Grand Mean

Dependent Variable: Expansion Ratio

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
4.551	.014	4.524	4.578

Post Hoc Tests (Perlakuan) → Homogeneous Subsets

Expansion Ratio

Duncan ^{a,b}

Perlakuan	N	Subset		
		1	2	3
10%	600	3.60385		
5%	600		4.83115	
0%	600			5.21779
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .331.

- a. Uses Harmonic Mean Sample Size = 600.000.
b. Alpha = .05.

Post Hoc Tests (Umur Simpan) → Homogeneous Subsets

Expansion Ratio

Duncan ^{a,b}

Umur Simpan	N	Subset
		1
14M	600	4.53224
7M	600	4.54380
0M	600	4.57675
Sig.		.208

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .331.

- a. Uses Harmonic Mean Sample Size = 600.000.
b. Alpha = .05.

LANJUTAN LAMPIRAN 7.

Hasil Analisa Anova Satu Arah Data Pengukuran Rasio Pengembangan (Expansion Ratio) Ekstrudat Terhadap Perlakuan Keseluruhan

Descriptives

Expansion Ratio	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
					0% PP OM	100		
0% PP 7M	100	5.18724	.457284	.045728	5.09651	5.27797	4.323	6.106
0% PP 14M	100	5.19326	.468671	.046867	5.10027	5.28625	4.323	6.134
5% PP OM	100	4.85357	.487466	.048747	4.75685	4.95029	4.066	5.820
5% PP 7M	100	4.81156	.482926	.048293	4.71574	4.90738	4.029	5.943
5% PP 14M	100	4.79713	.478024	.047802	4.70228	4.89198	3.943	5.914
10% PP OM	100	3.64121	.770820	.077082	3.48826	3.79416	2.086	5.086
10% PP 7M	100	3.57281	.710432	.071043	3.43184	3.71378	2.037	4.877
10% PP 14M	100	3.55309	.715511	.071551	3.41112	3.69506	2.037	4.791
0% PB OM	100	5.23547	.448855	.044885	5.14641	5.32453	4.323	6.106
0% PB 7M	100	5.22822	.481132	.048113	5.13275	5.32369	4.371	6.163
0% PB 14M	100	5.22711	.462026	.046203	5.13543	5.31879	4.323	6.134
5% PB OM	100	4.85357	.487466	.048747	4.75685	4.95029	4.066	5.820
5% PB 7M	100	4.84514	.499476	.049948	4.74603	4.94425	4.020	5.857
5% PB 14M	100	4.82594	.489428	.048943	4.72883	4.92305	4.037	5.820
10% PB OM	100	3.64121	.770820	.077082	3.48826	3.79416	2.086	5.086
10% PB 7M	100	3.61784	.757785	.075779	3.46748	3.76820	2.037	5.066
10% PB 14M	100	3.59691	.694293	.069429	3.45915	3.73467	2.037	5.086
Total	1800	4.55093	.895831	.021115	4.50952	4.59234	2.037	6.163

Test of Homogeneity of Variances

Expansion Ratio	Levene Statistic	df1	df2	Sig.
	9.443	17	1782	.000

ANOVA

Expansion Ratio	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	853.292	17	50.194	151.492	.000
Within Groups	590.429	1782	.331		
Total	1443.721	1799			

Post Hoc Tests → Homogeneous Subsets

Expansion Ratio

Perlakuan Keseluruhan	N	Subset for alpha = .05		
		1	2	3
10% PP 14M	100	3.55309		
10% PP 7M	100	3.57281		
10% PB 14M	100	3.59691		
10% PB 7M	100	3.61784		
10% PP OM	100	3.64121		
10% PB OM	100	3.64121		
5% PP 14M	100		4.79713	
5% PP 7M	100		4.81156	
5% PB 14M	100		4.82594	
5% PB 7M	100		4.84514	
5% PP OM	100		4.85357	
5% PB OM	100		4.85357	
0% PP 7M	100			5.18724
0% PP 14M	100			5.19326
0% PB 14M	100			5.22711
0% PB 7M	100			5.22822
0% PP OM	100			5.23547
0% PB OM	100			5.23547
Sig.		.355	.556	.615

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LANJUTAN LAMPIRAN 7.

**Hasil Analisa Anova Satu Arah Data Pengukuran Rasio Pengembangan
(Expansion Ratio) Ekstrudat Terhadap Perlakuan Kemasan Polypropilene**

Descriptives

Expansion Ratio	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 0M	100	5.2355	.44885	.04489	5.1464	5.3245	4.32	6.11
0% 7M	100	5.1872	.45728	.04573	5.0965	5.2780	4.32	6.11
0% 14M	100	5.1933	.46867	.04687	5.1003	5.2863	4.32	6.13
5% 0M	100	4.8536	.48747	.04875	4.7568	4.9503	4.07	5.82
5% 7M	100	4.8116	.48293	.04829	4.7157	4.9074	4.03	5.94
5% 14M	100	4.7971	.47802	.04780	4.7023	4.8920	3.94	5.91
10% 0M	100	3.6412	.77082	.07708	3.4883	3.7942	2.09	5.09
10% 7M	100	3.5728	.71043	.07104	3.4318	3.7138	2.04	4.88
10% 14M	100	3.5531	.71551	.07155	3.4111	3.6951	2.04	4.79
Total	900	4.5384	.89466	.02982	4.4798	4.5969	2.04	6.13

Test of Homogeneity of Variances

Expansion Ratio			
Levene Statistic	df1	df2	Sig.
10.539	8	891	.000

ANOVA

Expansion Ratio					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	428.478	8	53.560	163.935	.000
Within Groups	291.101	891	.327		
Total	719.579	899			

Post Hoc Tests → Homogeneous Subsets

Expansion Ratio

Duncan ^a		Subset for alpha = .05		
Kemasan Polypropilene	N	1	2	3
10% 14M	100	3.55309		
10% 7M	100	3.57281		
10% 0M	100	3.64121		
5% 14M	100		4.79713	
5% 7M	100		4.81156	
5% 0M	100		4.85357	
0% 7M	100			5.18724
0% 14M	100			5.19326
0% 0M	100			5.23547
Sig.		.307	.515	.578

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LANJUTAN LAMPIRAN 7.

Hasil Analisa Anova Satu Arah Data Pengukuran Rasio Pengembangan
(Expansion Ratio) Ekstrudat Terhadap Perlakuan Kemasan *Polycellonium Bag*

Descriptives

Expansion Ratio	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
					0% OM	100		
0% 7M	100	5.2282	.48113	.04811	5.1328	5.3237	4.37	6.16
0% 14M	100	5.2271	.46203	.04620	5.1354	5.3188	4.32	6.13
5% OM	100	4.8536	.48747	.04875	4.7568	4.9503	4.07	5.82
5% 7M	100	4.8451	.49948	.04995	4.7460	4.9442	4.02	5.86
5% 14M	100	4.8259	.48943	.04894	4.7288	4.9231	4.04	5.82
10% OM	100	3.6412	.77082	.07708	3.4883	3.7942	2.09	5.09
10% 7M	100	3.6178	.75779	.07578	3.4675	3.7682	2.04	5.07
10% 14M	100	3.5969	.69429	.06943	3.4591	3.7347	2.04	5.09
Total	900	4.5635	.89732	.02991	4.5048	4.6222	2.04	6.16

Test of Homogeneity of Variances

Expansion Ratio			
Levene Statistic	df1	df2	Sig.
9.555	8	891	.000

ANOVA

Expansion Ratio					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	424.530	8	53.066	157.961	.000
Within Groups	299.328	891	.336		
Total	723.858	899			

Post Hoc Tests → Homogeneous Subsets

Expansion Ratio

Duncan ^a				
Kemasan Polycellonium Bag	N	Subset for alpha = .05		
		1	2	3
10% 14M	100	3.59691		
10% 7M	100	3.61784		
10% OM	100	3.64121		
5% 14M	100		4.82594	
5% 7M	100		4.84514	
5% OM	100		4.85357	
0% 14M	100			5.22711
0% 7M	100			5.22822
0% OM	100			5.23547
Sig.		.614	.754	.924

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LAMPIRAN 8. Analisa Data Pengukuran *Bulk Density* Ekstrudat

Hasil Analisa Anova Dua Arah Data Pengukuran *Bulk Density* Ekstrudat

Between-Subjects Factors

		Value Label	N
Kemasan	1.00	Polypropilene	180
	2.00	Polycellonium Bag	180
Perlakuan	1.00	0%	120
	2.00	5%	120
	3.00	10%	120
Umur	1.00	0M	120
Simpan	2.00	7M	120
	3.00	14M	120

Descriptive Statistics

Dependent Variable: Bulk Density

Kemasan	Perlakuan	Umur Simpan	Mean	Std. Deviation	N
Polypropilene	0%	0M	.03670	.000657	20
		7M	.03230	.000470	20
		14M	.02955	.000826	20
		Total	.03285	.003041	60
	5%	0M	.04025	.000786	20
		7M	.03475	.000639	20
		14M	.03190	.000718	20
		Total	.03563	.003565	60
	10%	0M	.04365	.000489	20
		7M	.03850	.000513	20
		14M	.03670	.000470	20
		Total	.03962	.003009	60
	Total	0M	.04020	.002933	60
		7M	.03518	.002626	60
		14M	.03272	.003076	60
		Total	.03603	.004240	180
Polycellonium Bag	0%	0M	.03670	.000657	20
		7M	.03555	.000605	20
		14M	.03425	.000444	20
		Total	.03550	.001157	60
	5%	0M	.04025	.000786	20
		7M	.03855	.000510	20
		14M	.03715	.000489	20
		Total	.03865	.001412	60
	10%	0M	.04365	.000489	20
		7M	.04235	.000489	20
		14M	.04050	.000513	20
		Total	.04217	.001392	60
	Total	0M	.04020	.002933	60
		7M	.03882	.002855	60
		14M	.03730	.002619	60
		Total	.03877	.003032	180
Total	0%	0M	.03670	.000648	40
		7M	.03393	.001730	40
		14M	.03190	.002468	40
		Total	.03418	.002649	120
	5%	0M	.04025	.000776	40
		7M	.03665	.002007	40
		14M	.03452	.002727	40
		Total	.03714	.003096	120
	10%	0M	.04365	.000483	40
		7M	.04043	.002011	40
		14M	.03860	.001985	40
		Total	.04089	.002663	120
	Total	0M	.04020	.002921	120
		7M	.03700	.003285	120
		14M	.03501	.003659	120
		Total	.03740	.003928	360

LANJUTAN LAMPIRAN 8.

Levene's Test of Equality of Error Variances

Dependent Variable: Bulk Density

F	df1	df2	Sig.
2.742	17	342	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design:

Intercept+KEMASAN+PERLAK+SIMPAN+KEMASAN *
PERLAK+KEMASAN * SIMPAN+PERLAK * SIMPAN

Tests of Between-Subjects Effects

Dependent Variable: Bulk Density

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	5.407E-03 ^a	13	4.159E-04	1090.471	.000
Intercept	.504	1	.504	1320506	.000
KEMASAN	6.751E-04	1	6.751E-04	1770.196	.000
PERLAK	2.719E-03	2	1.360E-03	3564.705	.000
SIMPAN	1.646E-03	2	8.232E-04	2158.425	.000
KEMASAN * PERLAK	3.622E-06	2	1.811E-06	4.749	.009
KEMASAN * SIMPAN	3.511E-04	2	1.756E-04	460.297	.000
PERLAK * SIMPAN	1.128E-05	4	2.819E-06	7.393	.000
Error	1.320E-04	346	3.814E-07		
Total	.509	360			
Corrected Total	5.539E-03	359			

a. R Squared = .976 (Adjusted R Squared = .975)

Estimated Marginal Means

Grand Mean

Dependent Variable: Bulk Density

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
3.740E-02	.000	3.734E-02	3.747E-02

Post Hoc Tests (Perlakuan) → Homogeneous Subsets

Bulk Density

Duncan ^{a,b}

Perlakuan	N	Subset		
		1	2	3
0%	120	.03418		
5%	120		.03714	
10%	120			.04089
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 3.814E-07.

a. Uses Harmonic Mean Sample Size = 120.000.

b. Alpha = .05.

Post Hoc Tests (Umur Simpan) → Homogeneous Subsets

Bulk Density

Duncan ^{a,b}

Umur Simpan	N	Subset		
		1	2	3
14M	120	.03501		
7M	120		.03700	
0M	120			.04020
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 3.814E-07.

a. Uses Harmonic Mean Sample Size = 120.000.

b. Alpha = .05.

LANJUTAN LAMPIRAN 8.

Hasil Analisa Anova Satu Arah Data Pengukuran *Bulk Density* Ekstrudat Terhadap Perlakuan Keseluruhan

Descriptives

Bulk Density	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
					0% PP 0M	20		
0% PP 7M	20	.03230	.000470	.000105	.03208	.03252	.032	.033
0% PP 14M	20	.02955	.000826	.000185	.02916	.02994	.028	.031
5% PP 0M	20	.04025	.000786	.000176	.03988	.04062	.039	.041
5% PP 7M	20	.03475	.000639	.000143	.03445	.03505	.034	.036
5% PP 14M	20	.03190	.000718	.000161	.03156	.03224	.031	.033
10% PP 0M	20	.04365	.000489	.000109	.04342	.04388	.043	.044
10% PP 7M	20	.03850	.000513	.000115	.03826	.03874	.038	.039
10% PP 14M	20	.03670	.000470	.000105	.03648	.03692	.036	.037
0% PB 0M	20	.03670	.000657	.000147	.03639	.03701	.036	.038
0% PB 7M	20	.03555	.000605	.000135	.03527	.03583	.035	.037
0% PB 14M	20	.03425	.000444	.000099	.03404	.03446	.034	.035
5% PB 0M	20	.04025	.000786	.000176	.03988	.04062	.039	.041
5% PB 7M	20	.03855	.000510	.000114	.03831	.03879	.038	.039
5% PB 14M	20	.03715	.000489	.000109	.03692	.03738	.036	.038
10% PB 0M	20	.04365	.000489	.000109	.04342	.04388	.043	.044
10% PB 7M	20	.04235	.000489	.000109	.04212	.04258	.042	.043
10% PB 14M	20	.04050	.000513	.000115	.04026	.04074	.040	.041
Total	360	.03740	.003928	.000207	.03700	.03781	.028	.044

Test of Homogeneity of Variances

Bulk Density	Levene Statistic	df1	df2	Sig.
	2.779	17	342	.000

ANOVA

Bulk Density	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.005	17	.000	888.350	.000
Within Groups	.000	342	.000		
Total	.006	359			

Post Hoc Tests → Homogeneous Subsets

Bulk Density

Perlakuan Keseluruhan	N	Subset for alpha = .05												
		1	2	3	4	5	6	7	8	9	10	11	12	
0% PP 14M	20	.0296												
5% PP 14M	20		.0319											
0% PP 7M	20			.0323										
0% PB 14M	20				.0343									
5% PP 7M	20					.0348								
0% PB 7M	20						.0356							
0% PP 0M	20							.0367						
10% PP 14M	20							.0367						
0% PB 0M	20							.0367						
5% PB 14M	20								.0372					
10% PP 7M	20									.0385				
5% PB 7M	20									.0386				
5% PP 0M	20										.0403			
5% PB 0M	20										.0403			
10% PB 14M	20										.0405			
10% PB 14M	20											.0424		
10% PB 7M	20												.0437	
10% PP 0M	20												.0437	
10% PB 0M	20													
Sig.		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.792	.216	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

LANJUTAN LAMPIRAN 8.

Hasil Analisa Anova Satu Arah Data Pengukuran *Bulk Density* Ekstrudat Terhadap Perlakuan Kemasan *Polypropilene*

Descriptives

Bulk Density								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 0M	20	.03670	.000657	.000147	.03639	.03701	.036	.038
0% 7M	20	.03230	.000470	.000105	.03208	.03252	.032	.033
0% 14M	20	.02955	.000826	.000185	.02916	.02994	.028	.031
5% 0M	20	.04025	.000786	.000176	.03988	.04062	.039	.041
5% 7M	20	.03475	.000639	.000143	.03445	.03505	.034	.036
5% 14M	20	.03190	.000718	.000161	.03156	.03224	.031	.033
10% 0M	20	.04365	.000489	.000109	.04342	.04388	.043	.044
10% 7M	20	.03850	.000513	.000115	.03826	.03874	.038	.039
10% 14M	20	.03670	.000470	.000105	.03648	.03692	.036	.037
Total	180	.03603	.004240	.000316	.03541	.03666	.028	.044

Test of Homogeneity of Variances

Bulk Density			
Levene Statistic	df1	df2	Sig.
2.292	8	171	.023

ANOVA

Bulk Density					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.003	8	.000	984.187	.000
Within Groups	.000	171	.000		
Total	.003	179			

Post Hoc Tests → Homogeneous Subsets

Bulk Density

Duncan ^a		Subset for alpha = .05							
Kemasan Polypropilene	N	1	2	3	4	5	6	7	8
0% 14M	20	.02955							
5% 14M	20		.03190						
0% 7M	20			.03230					
5% 7M	20				.03475				
0% 0M	20					.03670			
10% 14M	20					.03670			
10% 7M	20						.03850		
5% 0M	20							.04025	
10% 0M	20								.04365
Sig.		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

LANJUTAN LAMPIRAN 8.

Hasil Analisa Anova Satu Arah Data Pengukuran *Bulk Density* Ekstrudat Terhadap Perlakuan Kemasan *Polycellonium Bag*

Descriptives

Bulk Density		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
						Lower Bound	Upper Bound		
0% 0M	20	.03670	.000657	.000147	.03639	.03701	.036	.038	
0% 7M	20	.03555	.000605	.000135	.03527	.03583	.035	.037	
0% 14M	20	.03425	.000444	.000099	.03404	.03446	.034	.035	
5% 0M	20	.04025	.000786	.000176	.03988	.04062	.039	.041	
5% 7M	20	.03855	.000510	.000114	.03831	.03879	.038	.039	
5% 14M	20	.03715	.000489	.000109	.03692	.03738	.036	.038	
10% 0M	20	.04365	.000489	.000109	.04342	.04388	.043	.044	
10% 7M	20	.04235	.000489	.000109	.04212	.04258	.042	.043	
10% 14M	20	.04050	.000513	.000115	.04026	.04074	.040	.041	
Total	180	.03877	.003032	.000226	.03833	.03922	.034	.044	

Test of Homogeneity of Variances

Bulk Density

Levene Statistic	df1	df2	Sig.
3.642	8	171	.001

ANOVA

Bulk Density

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.002	8	.000	627.031	.000
Within Groups	.000	171	.000		
Total	.002	179			

Post Hoc Tests → Homogeneous Subsets

Bulk Density

Duncan^a

Kemasan Polycellonium Bag	N	Subset for alpha = .05							
		1	2	3	4	5	6	7	8
0% 14M	20	.03425							
0% 7M	20		.03555						
0% 0M	20			.03670					
5% 14M	20				.03715				
5% 7M	20					.03855			
5% 0M	20						.04025		
10% 14M	20						.04050		
10% 7M	20							.04235	
10% 0M	20								.04365
Sig.		1.000	1.000	1.000	1.000	1.000	.162	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

LAMPIRAN 9. Analisa Data Pengukuran *Breaking Strength* Ekstrudat

Hasil Analisa Anova Dua Arah Data Pengukuran *Breaking Strength* Ekstrudat

Between-Subjects Factors

		Value Label	N
Kemasan	1.00	Polypropilene	27
	2.00	Polycellonium Bag	27
Perlakuan	1.00	0%	18
	2.00	5%	18
	3.00	10%	18
	Total		18
Umur Simpan	1.00	0M	18
	2.00	7M	18
	3.00	14M	18

Descriptive Statistics

Dependent Variable: Breaking Strength

	Perlakuan	Umur Simpan	Mean	Std. Deviation	N
Polypropilene	0%	0M	20.6000	1.36605	3
		7M	20.9600	1.36605	3
		14M	19.2233	4.76710	3
		Total	20.2611	2.69155	9
	5%	0M	28.7200	4.88722	3
		7M	19.9800	4.74798	3
		14M	16.0500	4.76063	3
		Total	21.5833	6.98700	9
	10%	0M	34.3200	4.76063	3
		7M	28.9833	1.17500	3
		14M	24.6300	3.44736	3
		Total	29.3111	5.16218	9
	Total	0M	27.8800	6.91341	9
		7M	23.3078	4.97462	9
		14M	19.9678	5.33227	9
		Total	23.7185	6.48013	27
Polycellonium Bag	0%	0M	20.6000	1.36605	3
		7M	30.7533	2.89621	3
		14M	30.6200	5.57591	3
		Total	27.3244	5.98120	9
	5%	0M	28.7200	4.88722	3
		7M	35.2067	4.06952	3
		14M	25.1533	6.13264	3
		Total	29.6933	6.24478	9
	10%	0M	34.3200	4.76063	3
		7M	32.2633	4.79548	3
		14M	26.8233	1.54649	3
		Total	31.1356	4.82347	9
	Total	0M	27.8800	6.91341	9
		7M	32.7411	3.97912	9
		14M	27.5322	4.86404	9
		Total	29.3844	5.72092	27
Total	0%	0M	20.6000	1.22183	6
		7M	25.8567	5.73363	6
		14M	24.9217	7.77764	6
		Total	23.7928	5.78366	18
	5%	0M	28.7200	4.37126	6
		7M	27.5933	9.23023	6
		14M	20.6017	6.99788	6
		Total	25.6383	7.66388	18
	10%	0M	34.3200	4.25804	6
		7M	30.6233	3.60256	6
		14M	25.7267	2.67462	6
		Total	30.2233	4.93660	18
	Total	0M	27.8800	6.70699	18
		7M	28.0244	6.53086	18
		14M	23.7500	6.29766	18
		Total	26.5515	6.69572	54

LANJUTAN LAMPIRAN 9.

Levene's Test of Equality of Error Variances

Dependent Variable: Breaking Strength

F	df1	df2	Sig.
1.114	17	36	.379

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design:

Intercept+KEMASAN+PERLAK+SIMPAN+KEMASAN *
PERLAK+KEMASAN * SIMPAN+PERLAK * SIMPAN

Tests of Between-Subjects Effects

Dependent Variable: Breaking Strength

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1704.159 ^a	13	131.089	7.803	.000
Intercept	38068.983	1	38068.983	2266.102	.000
KEMASAN	433.387	1	433.387	25.798	.000
PERLAK	394.682	2	197.341	11.747	.000
SIMPAN	212.092	2	106.046	6.313	.004
KEMASAN * PERLAK	102.075	2	51.037	3.038	.059
KEMASAN * SIMPAN	224.552	2	112.276	6.683	.003
PERLAK * SIMPAN	337.372	4	84.343	5.021	.002
Error	671.973	40	16.799		
Total	40445.115	54			
Corrected Total	2376.132	53			

a. R Squared = .717 (Adjusted R Squared = .625)

Estimated Marginal Means

Grand Mean

Dependent Variable: Breaking Strength

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
26.551	.558	25.424	27.679

Post Hoc Tests (Perlakuan) → Homogeneous Subsets

Breaking Strength

Duncan^{a,b}

Perlakuan	N	Subset	
		1	2
0%	18	23.7928	
5%	18	25.6383	
10%	18		30.2233
Sig.		.184	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 16.799.

a. Uses Harmonic Mean Sample Size = 18.000.

b. Alpha = .05.

Post Hoc Tests (Umur Simpan) → Homogeneous Subsets

Breaking Strength

Duncan^{a,b}

Umur Simpan	N	Subset	
		1	2
14M	18	23.7500	
0M	18		27.8800
7M	18		28.0244
Sig.		1.000	.916

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 16.799.

a. Uses Harmonic Mean Sample Size = 18.000.

b. Alpha = .05.

LANJUTAN LAMPIRAN 9.

Hasil Analisa Anova Satu Arah Data Pengukuran *Breaking Strength* Ekstrudat Terhadap Perlakuan Keseluruhan

Descriptives

Breaking Strength

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
					0% PP 0M	3		
0% PP 7M	3	20.9600	1.36605	.78869	17.5665	24.3535	19.45	22.11
0% PP 14M	3	19.2233	4.76710	2.75229	7.3812	31.0655	14.54	24.07
5% PP 0M	3	28.7200	4.88722	2.82164	16.5795	40.8605	25.15	34.29
5% PP 7M	3	19.9800	4.74798	2.74125	8.1854	31.7746	14.54	23.29
5% PP 14M	3	16.0500	4.76063	2.74855	4.2239	27.8761	10.71	19.85
10% PP 0M	3	34.3200	4.76063	2.74855	22.4939	46.1461	28.98	38.12
10% PP 7M	3	28.9833	1.17500	.67839	26.0645	31.9022	27.81	30.16
10% PP 14M	3	24.6300	3.44736	1.99033	16.0663	33.1937	21.32	28.20
0% PB 0M	3	20.6000	1.36605	.78869	17.2065	23.9935	19.45	22.11
0% PB 7M	3	30.7533	2.89621	1.67213	23.5587	37.9479	27.81	33.60
0% PB 14M	3	30.6200	5.57591	3.21925	16.7687	44.4713	24.76	35.86
5% PB 0M	3	28.7200	4.88722	2.82164	16.5795	40.8605	25.15	34.29
5% PB 7M	3	35.2067	4.06952	2.34954	25.0974	45.3159	30.85	38.91
5% PB 14M	3	25.1533	6.13264	3.54068	9.9190	40.3876	19.45	31.64
10% PB 0M	3	34.3200	4.76063	2.74855	22.4939	46.1461	28.98	38.12
10% PB 7M	3	32.2633	4.79548	2.76867	20.3507	44.1760	27.81	37.34
10% PB 14M	3	26.8233	1.54649	.89287	22.9816	30.6650	25.15	28.20
Total	54	26.5515	6.69572	.91117	24.7239	28.3791	10.71	38.91

Test of Homogeneity of Variances

Breaking Strength

Levene Statistic	df1	df2	Sig.
1.288	17	36	.254

ANOVA

Breaking Strength

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1778.272	17	104.604	6.299	.000
Within Groups	597.859	36	16.607		
Total	2376.132	53			

Post Hoc Tests → Homogeneous Subsets

Breaking Strength

Duncan^a

Perlakuan Keseluruhan	N	Subset for alpha = .05				
		1	2	3	4	5
5% PP 14M	3	16.0500				
0% PP 14M	3	19.2233	19.2233			
5% PP 7M	3	19.9800	19.9800			
0% PP 0M	3	20.6000	20.6000			
0% PB 0M	3	20.6000	20.6000			
0% PP 7M	3	20.9600	20.9600			
10% PP 14M	3		24.6300	24.6300		
5% PB 14M	3		25.1533	25.1533		
10% PB 14M	3		26.8233	26.8233	26.8233	
5% PP 0M	3			28.7200	28.7200	28.7200
5% PB 0M	3			28.7200	28.7200	28.7200
10% PP 7M	3			28.9833	28.9833	28.9833
0% PB 14M	3			30.6200	30.6200	30.6200
0% PB 7M	3			30.7533	30.7533	30.7533
10% PB 7M	3			32.2633	32.2633	32.2633
10% PP 0M	3				34.3200	34.3200
10% PB 0M	3				34.3200	34.3200
5% PB 7M	3					35.2067
Sig.		.204	.056	.056	.061	.104

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LANJUTAN LAMPIRAN 9.

Hasil Analisa Anova Satu Arah Data Pengukuran *Breaking Strength* Ekstrudat Terhadap Perlakuan Kemasan *Polypropilene*

Descriptives

Breaking Strength		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
						Lower Bound	Upper Bound		
0% 0M	3					20.6000	1.36605		
0% 7M	3	20.9600	1.36605	.78869	17.5665	24.3535	19.45	22.11	
0% 14M	3	19.2233	4.76710	2.7523	7.3812	31.0655	14.54	24.07	
5% 0M	3	28.7200	4.88722	2.8216	16.5795	40.8605	25.15	34.29	
5% 7M	3	19.9800	4.74798	2.7412	8.1854	31.7746	14.54	23.29	
5% 14M	3	16.0500	4.76063	2.7486	4.2239	27.8761	10.71	19.85	
10% 0M	3	34.3200	4.76063	2.7486	22.4939	46.1461	28.98	38.12	
10% 7M	3	28.9833	1.17500	.67839	26.0645	31.9022	27.81	30.16	
10% 14M	3	24.6300	3.44736	1.9903	16.0663	33.1937	21.32	28.20	
Total	27	23.7185	6.48013	1.2471	21.1551	26.2820	10.71	38.12	

Test of Homogeneity of Variances

Breaking Strength

Levene Statistic	df1	df2	Sig.
1.750	8	18	.154

ANOVA

Breaking Strength

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	828.838	8	103.605	7.092	.000
Within Groups	262.956	18	14.609		
Total	1091.793	26			

Post Hoc Tests → Homogeneous Subsets

Breaking Strength

Duncan^a

Kemasan Polypropilene	N	Subset for alpha = .05			
		1	2	3	4
5% 14M	3	16.0500			
0% 14M	3	19.2233	19.2233		
5% 7M	3	19.9800	19.9800		
0% 0M	3	20.6000	20.6000		
0% 7M	3	20.9600	20.9600		
10% 14M	3		24.6300	24.6300	
5% 0M	3			28.7200	28.7200
10% 7M	3			28.9833	28.9833
10% 0M	3				34.3200
Sig.		.173	.135	.203	.105

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LANJUTAN LAMPIRAN 9.

Hasil Analisa Anova Satu Arah Data Pengukuran *Breaking Strength* Ekstrudat Terhadap Perlakuan Kemasan Polycelloninum Bag

Descriptives

Breaking Strength

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		MIN	MAX
					Lower Bound	Upper Bound		
0% 0M	3	20.6000	1.36605	.78869	17.2065	23.9935	19.45	22.11
0% 7M	3	30.7533	2.89621	1.6721	23.5587	37.9479	27.81	33.60
0% 14M	3	30.6200	5.57591	3.2193	16.7687	44.4713	24.76	35.86
5% 0M	3	28.7200	4.88722	2.8216	16.5795	40.8605	25.15	34.29
5% 7M	3	35.2067	4.06952	2.3495	25.0974	45.3159	30.85	38.91
5% 14M	3	25.1533	6.13264	3.5407	9.9190	40.3876	19.45	31.64
10% 0M	3	34.3200	4.76063	2.7486	22.4939	46.1461	28.98	38.12
10% 7M	3	32.2633	4.79548	2.7687	20.3507	44.1760	27.81	37.34
10% 14M	3	26.8233	1.54649	.89287	22.9816	30.6650	25.15	28.20
Total	27	29.3844	5.72092	1.1010	27.1213	31.6476	19.45	38.91

Test of Homogeneity of Variances

Breaking Strength

Levene Statistic	df1	df2	Sig.
1.072	8	18	.424

ANOVA

Breaking Strength

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	516.048	8	64.506	3.467	.014
Within Groups	334.904	18	18.606		
Total	850.952	26			

Post Hoc Tests → Homogeneous Subsets

Breaking Strength

Duncan^a

Kemasan Polycelloninum Bag	N	Subset for alpha = .05			
		1	2	3	4
0% 0M	3	20.6000			
5% 14M	3	25.1533	25.1533		
10% 14M	3	26.8233	26.8233	26.8233	
5% 0M	3		28.7200	28.7200	28.7200
0% 14M	3		30.6200	30.6200	30.6200
0% 7M	3		30.7533	30.7533	30.7533
10% 7M	3		32.2633	32.2633	32.2633
10% 0M	3			34.3200	34.3200
5% 7M	3				35.2067
Sig.		.110	.088	.073	.118

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 10. Data Hasil Uji Sensoris Ekstrudat

Data Hasil Uji Sensoris Ekstrudat Lama Penyimpanan 0 Minggu

No.	Penampilan Keseluruhan		Wama		Aroma		Kerenyahan		Rasa	
	5%PP	10%PP	5%PP	10%PP	5%PP	10%PP	5%PP	10%PP	5%PP	10%PP
1	1	-1	1	1	3	4	1	2	2	3
2	3	-1	3	1	1	1	-1	1	1	2
3	3	-2	2	-1	2	2	4	3	2	1
4	2	2	2	2	1	1	2	1	2	1
5	-2	-3	3	2	1	2	1	2	1	1
6	4	-1	-2	0	3	4	3	1	0	3
7	1	-2	1	1	1	3	0	1	2	1
8	3	1	3	-1	1	1	2	-2	3	3
9	2	-1	2	2	2	3	1	1	2	3
10	3	-3	1	1	3	5	2	4	1	3
11	1	-1	-1	-1	2	1	2	2	2	3
12	2	-1	3	1	2	2	1	2	1	1
13	1	1	-1	-2	1	2	1	1	1	2
14	2	-1	4	1	2	2	1	2	3	0
15	2	-2	1	-1	1	1	3	1	1	2
16	2	-2	2	-1	2	3	0	0	-1	-1
17	4	1	3	2	2	1	2	3	4	4
18	-1	-3	3	1	3	2	4	3	2	1
19	1	-1	1	0	1	1	2	3	1	2
20	2	-2	2	-1	1	2	1	1	1	2
21	3	-2	0	1	-1	1	2	2	2	1
22	0	-2	-2	-1	1	3	1	1	3	1
23	2	-2	4	1	1	2	2	3	1	3
24	0	-1	1	-1	2	3	-1	-1	0	-1
25	3	-1	2	1	2	3	1	2	2	3
26	3	1	2	1	2	3	1	1	1	2
27	1	-3	-1	0	1	2	3	2	-2	2
28	2	-1	1	1	-1	2	2	2	3	2
29	4	-1	3	-1	1	2	1	2	2	3
30	1	-1	2	1	2	2	-2	2	-1	2
Rata-rata	1.83	-1.17	1.50	0.33	1.50	2.20	1.40	1.60	1.40	1.83
% Kesukaan	86.67	16.67	80	56.67	93.33	100	83.33	90	83.33	90

LANJUTAN LAMPIRAN 10. Data Hasil Uji Sensoris Ekstrudat

Data Hasil Uji Sensoris Ekstrudat Lama Penyimpanan 7 Minggu

No.	Penampilan Keseluruhan									Warna									Aroma								
	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB			
1	2	1	1	1	1	-2	1	3	1	2	3	1	1	-1	2	0	0	1	2	-1	2	0	1	3			
2	-1	2	-2	3	2	-3	-2	4	1	3	-2	2	2	-2	3	-1	-2	2	-1	3	-1	2	2	2			
3	2	-2	-4	2	1	2	1	2	-2	1	1	-1	1	2	1	-1	1	2	2	-1	2	-2	3	4			
4	0	1	1	-1	-1	-3	2	1	-1	2	2	2	2	0	2	0	0	2	3	0	0	2	2	2			
5	3	3	-2	2	1	-2	1	-1	0	-2	2	1	1	1	1	-1	2	2	-2	2	-2	1	-2	3			
6	1	4	-2	1	4	-2	2	2	1	1	-1	1	1	2	2	-2	4	2	-1	2	-1	-3	1	-1			
7	-1	1	-3	2	3	-3	0	1	2	-1	0	2	1	3	-2	-3	0	4	2	-3	2	-3	0	3			
8	2	3	-3	0	2	-2	2	3	-1	1	2	1	2	3	-1	-3	2	4	2	4	2	-1	4	2			
9	2	2	-2	2	3	-3	0	2	-2	0	2	2	2	2	-2	0	2	2	4	-1	2	-1	2	3			
10	4	-2	-1	0	2	1	3	1	4	3	2	2	2	3	1	0	2	1	1	2	1	-2	2	3			
11	1	3	-1	2	2	1	2	1	2	1	1	1	1	2	-2	-2	1	3	0	-2	3	-3	1	2			
12	3	-1	-2	0	0	-2	1	2	-1	0	-2	2	2	2	-1	0	2	2	3	-1	1	3	1	3			
13	2	1	-4	3	0	-2	1	1	-1	0	1	1	1	1	1	1	1	3	3	0	3	1	3	4			
14	0	4	-3	0	2	-4	-1	0	-1	1	1	0	0	-2	-3	-3	0	2	2	-2	2	0	2	2			
15	2	0	-2	4	1	-2	3	1	1	1	2	1	1	0	1	0	2	1	2	1	2	2	1	3			
16	-1	3	-3	-1	3	-3	-1	-2	-2	2	1	-1	-1	-1	1	1	1	2	2	-2	0	0	1	3			
17	1	2	-1	1	1	-4	1	2	1	0	0	1	1	2	1	-1	2	2	2	-1	2	1	2	-1			
18	3	2	2	3	3	-1	1	1	2	2	1	-1	-1	0	2	2	2	2	2	0	2	-1	1	2			
19	2	1	-3	0	1	-4	-2	3	3	1	2	3	-3	1	-2	-2	1	2	-3	1	1	0	-1	3			
20	1	1	-1	3	2	-1	2	1	0	-2	1	2	2	1	1	2	1	2	-1	2	2	-1	1	1			
21	2	2	-3	2	3	-3	0	2	-1	1	2	-1	-1	2	-3	-3	2	3	3	0	3	1	3	2			
22	1	1	-4	-2	1	-3	1	1	1	0	3	2	2	1	-1	-1	3	2	3	-1	3	1	2	1			
23	3	2	1	1	-1	-1	2	2	0	1	-1	-1	-1	2	-2	-2	1	1	1	-2	1	-2	2	2			
24	-1	-1	-3	3	1	1	1	3	-1	-2	1	0	0	3	0	0	2	3	3	0	2	0	1	3			
25	3	4	-2	-1	3	-1	-1	1	-3	1	2	1	-1	1	-1	-1	1	2	2	-1	-1	-1	-2	3			
26	4	3	-2	3	2	-3	2	2	-1	1	-1	2	2	2	-2	-2	4	4	4	-2	2	-2	2	2			
27	2	2	-2	1	-1	-3	1	-1	-3	-3	3	3	-1	1	-1	1	1	2	1	1	0	0	1	-1			
28	3	0	-4	3	2	-2	-2	0	-1	2	0	0	0	2	2	2	2	2	2	2	0	-3	2	1			
29	1	3	-1	2	4	-2	-1	3	-1	1	3	1	1	0	1	0	1	2	2	0	2	1	2	2			
30	2	1	-1	4	2	-2	1	2	2	3	4	-1	-1	-1	-1	-1	3	4	2	-1	-1	-1	0	1			
Rata-rata	1.60	1.53	-1.87	1.43	1.77	-2.07	0.70	1.53	-0.13	0.83	1.23	0.17	-1.03	0.93	1.50	-0.77	1.37	1.97	1.50	-0.77	1.37	1.97	1.37	1.97			
% Kesukaan	80	80	13.33	70	86.67	10	66.67	83.33	40	70	73.33	50	10	66.67	73.33	16.67	83.33	90	73.33	16.67	83.33	83.33	83.33	90			

LANJUTAN LAMPIRAN 10. Data Hasil Uji Sensoris Ekstrudat

Data Hasil Uji Sensoris Ekstrudat Lama Penyimpanan 7 Minggu

No.	Kerenyahan						Rasa					
	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB
1	-2	-2	-3	1	1	2	-1	0	-1	0	0	3
2	-2	-2	-2	-2	2	3	-2	0	-1	2	1	1
3	-2	-3	-3	0	1	3	-3	-3	-3	0	2	2
4	-4	-3	-3	1	-1	2	-2	-2	-4	-3	2	-1
5	-3	-3	-2	2	2	1	-2	-2	-3	1	2	2
6	-2	-2	-1	2	2	-1	0	-2	-1	-2	3	1
7	-3	-2	-3	-1	0	2	0	-1	-1	2	2	2
8	-2	-2	-2	3	2	3	-1	-2	-3	0	-1	1
9	-3	-3	-3	1	1	0	-1	-1	1	3	1	3
10	-2	-2	-4	1	-1	1	-1	-2	-2	1	1	2
11	-3	-2	-2	2	3	2	-2	-2	-3	0	2	0
12	-2	-3	-3	3	0	3	-2	-2	-1	-1	0	3
13	-4	-3	-4	0	2	1	-1	-1	-2	0	1	2
14	-2	-2	-4	-2	3	0	0	-2	-2	-1	0	1
15	-2	-1	-2	0	1	2	-3	-1	-2	-3	1	4
16	-3	-3	-2	-1	3	1	-2	1	-1	1	2	-1
17	-1	-2	-2	2	1	2	-2	-2	-1	-1	3	2
18	-2	-3	-3	1	2	1	-1	-2	-1	0	2	1
19	-3	-4	-3	2	2	-1	-2	-2	1	1	-1	-1
20	-2	-2	-3	1	0	1	-1	-2	-2	0	1	2
21	-2	-2	-3	0	1	3	-1	1	-1	2	2	1
22	-3	-3	-3	3	2	1	-1	-2	-2	-1	-1	2
23	-3	-2	-2	1	0	3	-2	-3	-2	0	3	1
24	-2	-3	-4	3	-2	1	-2	-1	-1	1	1	2
25	-2	-2	-3	-2	1	2	-2	-1	-3	2	1	2
26	-1	-1	-2	-1	2	0	-1	-1	-2	-1	2	2
27	-4	-4	-4	3	0	2	-1	1	-3	0	2	-1
28	-3	-3	-2	2	1	2	-2	-1	-2	1	-1	3
29	-3	-3	-4	0	3	-2	-1	0	-2	-2	2	1
30	-1	-2	-1	-2	-1	2	-2	-3	-2	2	-1	3
Rata-rata	-2.43	-2.47	-2.73	0.77	1.10	1.40	-1.47	-1.33	-1.73	0.13	1.13	1.50
% Kesukaan	0	0	0	60	70	80	0	10	6.67	40	73.33	83.33

LANJUTAN LAMPIRAN 10. Data Hasil Uji Sensoris Ekstrudat

Data Hasil Uji Sensoris Ekstrudat Lama Penyimpanan 14 Minggu

No.	Penampian Keseluruhan						Warna						Aroma					
	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB
1	2	2	-1	3	-2	-2	3	1	-2	1	3	1	-2	2	2	1	2	1
2	2	2	-1	2	-1	-2	2	1	-2	3	2	-2	1	2	3	-3	2	2
3	3	-1	-2	4	-3	-1	1	2	-1	2	3	-1	0	-2	-1	0	1	3
4	2	3	-1	2	-1	2	1	-1	2	1	1	-1	-3	-1	2	2	3	-2
5	-2	1	-2	2	-3	-3	3	3	-2	2	2	-3	-2	3	2	-2	1	3
6	2	2	-2	0	-3	-3	-2	3	-3	1	3	1	-1	-1	0	-3	2	2
7	3	0	-3	1	-1	-1	2	2	-2	-2	3	-1	-2	2	2	0	-1	0
8	2	3	-1	2	-2	-3	1	-1	1	2	1	-1	-1	2	1	-2	1	2
9	1	1	-1	2	-2	-2	0	2	-2	2	2	-2	0	1	-1	1	2	3
10	1	-2	-3	-2	-2	-2	1	2	-1	1	1	-1	-1	4	1	0	2	1
11	2	2	-1	1	-2	-2	3	1	2	1	-1	1	-2	2	3	-2	1	1
12	3	3	-3	2	-4	-4	2	2	-2	1	1	1	-1	0	-1	-1	3	-2
13	1	2	-1	1	-1	-1	1	1	1	1	1	1	1	2	2	1	1	2
14	0	4	-3	3	-4	-4	3	2	-2	3	2	-2	0	-1	-3	1	1	1
15	5	4	-3	4	-4	-4	2	2	-2	3	2	-2	-1	2	-1	0	0	1
16	2	1	-3	2	-3	-3	1	2	-1	1	1	-2	0	3	1	-1	1	-1
17	3	2	-4	-1	-3	-3	2	2	-1	0	1	-1	-2	-1	2	-1	1	2
18	-1	1	-3	2	-2	-2	2	0	2	1	3	2	-2	-2	2	0	-1	1
19	4	4	-5	3	-4	-4	4	4	-3	4	4	-3	-1	1	-1	-1	2	3
20	-2	2	-3	2	-2	-3	-2	-1	-1	1	1	1	1	0	1	-1	1	-2
21	3	-2	-1	-1	-2	-2	1	2	-2	1	0	1	-1	3	2	1	-1	4
22	3	2	-2	2	-3	-3	1	2	-1	1	1	-2	-2	3	1	0	2	2
23	3	0	-3	4	-1	-1	-1	-2	-3	0	-1	1	-1	-2	2	-3	-1	4
24	1	1	-2	1	-2	-2	1	0	0	2	-2	-1	0	2	-2	-2	0	1
25	5	3	-5	2	-1	-1	1	3	-1	2	2	-2	-2	1	2	0	3	3
26	2	2	-2	0	-2	-2	3	2	-3	-1	3	-2	-3	3	3	-1	1	1
27	-1	-1	-3	1	-4	-4	0	1	1	2	1	-2	-3	-1	0	0	3	-1
28	4	3	-5	3	-2	-2	1	4	-3	2	-1	-3	1	1	-1	-1	2	1
29	2	1	-5	-1	-4	-4	2	2	-2	1	-2	-4	0	-2	2	-4	-2	3
30	1	-3	-3	1	-2	-2	-2	0	-1	3	3	-1	-1	2	1	2	0	1
Rata-rata	1.87	1.40	-2.57	1.57	1.83	-2.47	1.23	1.43	-1.13	1.10	1.33	-1.03	-1.00	0.80	0.73	-0.63	1.03	1.33
% Kesukaan	83.33	76.67	0	80	90	0	80	76.67	20	76.67	80	26.67	13.33	60	63.33	23.33	73.33	80

LANJUTAN LAMPIRAN 10. Data Hasil Uji Sensoris Ekstrudat

Data Hasil Uji Sensoris Ekstrudat Lama Penyimpanan 14 Minggu

No.	Kerenyahan						Rasa					
	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB	0%PP	5%PP	10%PP	0%PB	5%PB	10%PB
1	-3	-4	-2	1	2	1	-2	-1	-3	-1	1	1
2	-2	-2	-1	-2	-2	3	-2	-1	-2	-1	2	2
3	-4	-3	-4	1	0	2	-1	-1	-1	-2	2	-1
4	-1	-2	-2	3	3	4	-2	-2	-2	-1	-1	2
5	-5	-5	-5	-1	2	2	0	-1	-2	1	2	3
6	-2	-2	-4	0	1	1	-2	-2	-2	0	3	2
7	-5	-5	-5	1	-2	-2	-4	-3	-4	1	1	1
8	-4	-3	-3	2	0	2	-1	-1	-1	-3	0	2
9	-2	-2	-1	3	1	-2	-2	-2	-1	-1	-1	2
10	-4	-4	-4	-1	-1	1	-2	-2	-2	0	2	3
11	-2	-2	-3	2	2	2	-2	-1	-2	-1	1	-1
12	-3	-3	-3	0	1	-1	-3	-3	-4	0	-2	1
13	-1	-1	-1	1	2	3	-3	-4	-2	2	2	4
14	-4	-4	-5	1	-1	-1	-2	-3	-4	1	3	2
15	-4	-4	-3	-2	2	1	-2	-1	-4	2	0	-2
16	-5	-4	-3	-1	1	3	-2	-1	-3	1	-1	-1
17	-4	-4	-4	0	1	3	-3	0	-1	-3	1	1
18	-3	-2	-3	-2	-1	0	-2	-2	-1	0	-1	-1
19	-5	-5	-5	-1	3	3	-4	-4	-5	-2	2	2
20	-2	-2	-3	1	2	-1	0	-1	-3	-1	-2	3
21	-1	-2	-3	0	-1	1	-2	-3	-1	0	1	2
22	-3	-4	-4	-2	0	2	-1	-1	-1	-2	2	-1
23	-1	-3	-2	3	1	2	-2	-3	-1	-1	4	3
24	-2	-2	-3	-1	2	-2	0	0	0	2	0	0
25	-3	-3	-3	2	-1	1	-2	-2	-3	-3	-1	4
26	-3	-2	-3	-1	3	0	-3	-3	-3	-1	3	3
27	-5	-4	-5	2	-1	-1	-3	-4	-4	0	-2	1
28	-5	-5	-5	2	1	3	-4	-4	-5	2	2	-2
29	-3	-4	-4	-1	-2	2	-2	-3	-5	-1	-1	-1
30	-2	-2	-3	1	2	-1	-3	-2	-2	1	1	1
Rata-rata	-3.10	-3.13	-3.30	0.37	0.67	1.03	-2.10	-2.03	-2.47	-0.37	0.77	1.17
% Kesukaan	0	0	0	50	60	66.67	0	0	0	30	60	70