LAMPIRAN 1a. Data Hasil Pengukuran Pengembangan Ekstrudat

ulangan	AXIAL (CM)								
	JG	MP	MM	SP	SM	KH	KHS	BMS	BM
1	5.23	3.24	4.8	3.17	8.3	5.8	3.05	2.8	2.3
2	5.6	2.96	6.7	3.35	6	5.7	2.6	2.7	2.6
3	5.45	3.5	5.7	2.83	5	5.7	2.71	2.7	2.4
4	6.4	3.3	5.3	2.08	6	5.6	2.5	2.8	3.1
5	5.2	2.9	5.9	2.14	8.3	5.8	1.96	3.2	2.4
6	4.19	3.51	5.5	2.55	4	6.04	2.9	2.6	2.4
7	4.9	4.4	5.9	2.22	6.5	5.7	2.51	2.63	2.9
8	5.4	3.9	5.2	2.95	5.8	5.8	2.59	3.1	2.4
9	5	3.21	7	2.41	5.2	5	2.26	2.2	2.9
10	5.8	3.4	5.3	2.36	6.4	5.2	2.5	2.9	2
11	6	3.85	5.5	2.5	5.5	6.6	2.2	2.4	2.7
12	5.5	3.1	5.6	2.23	6.5	6	2.5	2.27	2.3
13	5.1	3.5	6.1	2	6.5	6.3	2.9	2.8	2.7
14	5.8	3.1	5.8	3.07	5.4	5.8	2.28	3	2.2
15	6.8	2.8	5.3	2.5	6.3	5.84	2.4	2.7	2.2
16	5.4	3.38	6.1	3.66	6.1	6.1	2.7	3.3	2.6
17	5	3.2	6.2	2.17	6.8	6.2	2.3	2.2	2.9
18	5.1	3.4	5.6	2.17	6.6	6.1	2.35	2.6	3.4
19	6.4	3	5.1	2.83	4.8	6	2.5	2	2.6
20	5.1	2.96	6.3	2.61	5	5.9	2.4	2.2	2.6
21	5.7	2.5	5.7	2.18	5.7	5.7	3.5	2.2	2.3
22	4.23	4.1	6.1	4.17	5.1	5.9	2.5	2.6	2.5
23	5.4	3.9	6.2	2.2	6.3	5.7	2.4	2.6	2.7
24	5.7	2.7	5.6	2.78	5.8	6	2.5	3.3	2.5
25	5.28	3.8	6.6	2.44	5.8	6.1	2.4	2.5	2.8
26	5.8	4.6	6.1	2.86	8.3	6.1	2.19	3.1	2.5
27	5.2	2.42	6.1	3.3	6	6.2	2.9	2.6	2.6
28	5.51	4.05	6.2	2.05	5	5.8	2.2	2.7	2.6
29	4.2	3.5	6	2.46	6	5.5	2.5	3	2.8
30	6.2	3.2	5.9	2.1	8.3	5.8	2.5	2.4	2.2
31	4.9	2.6	6.4	2.05	5.5	6.2	2.71	2.7	2.6
32	4.61	3.4	6.2	2.38	6.5	5.2	2.2	2.5	2.1
33	5.2	3	5	2.26	6.5	6.2	2.3	2.6	2.7
34	4.75	2.8	6.7	2.25	5.2	5.72	2.8	3.1	2.6
35	4.5	3	6.9	1.71	6.4	5.55	2.3	3.3	2.3
36	5.04	3.9	6.2	1.72	6.6	4.77	2.6	2.6	2.2
37	5.1	5.3	5.9	1.63	4.8	6.15	2.4	2.8	2.6
38	4.2	3.8	5.7	1.78	5	6.14	2.5	2.8	2.7
39	5	3.2	5.9	2.51	5.4	6	2.1	3	2.5
40	5.1	3.9	5.2	1.92	6.3	5.2	2.1	2.8	2.3
41	5.7	3	5.8	1.7	6.1	5.6	2.3	3.2	2.2
42	4.9	5.2	6.7	1.73	6.8	5.8	2.3	2.7	2.5
43	5.4	2.9	6	2.05	6.6	6.3	2.1	3	2.7
44	5.36	3.7	5.9	1.64	4.8	6.04	2.2	2.7	2.7
45	5.8	3.8	6.2	2.24	5	5.8	2.5	2.7	2.7
46	4.9	4.4	5.8	2.65	5.7	5.7	2.8	3	2.5
47	5	3.4	5.9	1.66	5.1	5.7	2.5	2.8	2.1
48	4.42	3.9	5.8	1.13	4.81	6.6	2.2	2.2	2.9
49	4.9	3.3	5.9	1.52	4.03	6	2.3	2.6	2.6
50	3.78	3.3	5.6	1.72	6.5	6.3	2.9	3	2.5

LAMPIRAN 1b. Data Hasil Pengukuran Pengembangan Ekstrudat

ulangan	AXIAL (CM)								
	JG	MP	MM	SP	SM	KH	KHS	BMS	BM
51	5	3.3	4	2	5	6	2.3	3	1
52	5.1	3.6	6	1.76	5.5	5.8	2.1	2.7	2.3
53	5.3	3.2	6	2.22	6.5	5.7	2	3	2.2
54	5.5	2.8	5.9	1.6	6.5	5.2	2.4	3	2.3
55	4.3	3	5.5	1.16	5.4	6.2	2.3	3	2.4
56	5.6	3.8	5.6	2.34	6.3	5.8	2.2	2.7	2.5
57	5.5	4.6	5.9	1.44	5.8	5.5	2.1	2.2	2.6
58	5.3	3.1	5	1.45	5.8	5.8	2.4	2.5	2.2
59	5.1	3.1	5.8	2.74	5.82	5.78	2.1	2.9	2.3
60	6.2	3.5	4.9	2.92	5.5	6.1	2	3.1	2.6
61	5.4	3.6	6.2	1.65	6.51	6.2	1.9	2.4	2.9
62	5.1	3.1	5.3	2	5.5	6.1	2.3	2.1	2
63	5.6	4.4	5.2	1.88	6.5	6	2.8	2.4	2.4
64	4.9	2.8	5.2	1.58	6.48	5.9	2.6	2.8	2.6
65	5	2.21	5.7	1.38	5.5	5.7	2.5	3.2	2.4
66	5.4	3.8	5.5	1.48	5.4	5.9	2.2	2.9	2.8
67	6.1	4.1	5.6	1.15	6.37	5.7	2.4	2.7	2.5
68	4.5	3.3	5.5	1.3	5.8	6	2.7	2.3	2.3
69	4.8	3.9	5.7	1.68	5.86	6.1	2.1	2.7	2.6
70	5.2	2.9	5.7	2.1	6.12	6.1	2	2.8	2.7
71	5.2	3.7	5	1.22	6.5	5.72	2	2.8	2.7
72	4.9	3.5	4.3	1.72	8.3	5.55	2.1	3	2.6
73	4.5	4.5	5.8	1.94	6.04	4.71	2.1	3.2	2.7
74	3.72	3.7	5.6	2.08	5.7	5.8	2.4	3.2	2.3
75	5.2	3.6	6.1	1.66	6	6.2	1.66	2.6	2.4
76	4	2.7	6.1	1.84	8.28	5.2	2.5	2.8	2
77	5	3.9	5.3	1.74	4.05	6.2	2	2.8	2.6
78	4.8	3.4	5	1.5	6.5	5.2	2.5	2.4	2.2
79	5.3	3.4	5.7	2.07	5.4	5.9	1.8	2.8	2.9
80	5.1	4.4	5	2.2	6.3	4.77	2.1	2.4	2.5
81	5	2.8	5.8	1.5	5.8	6.15	2	2.6	2.4
82	5.3	4	5.7	1.3	7.14	6.14	2	2.6	2.9
83	5.3	3.8	6	1.85	5.8	6	1.8	2.2	2.5
84	4.7	3.2	6.1	1.16	5.8	5.2	1.7	2.9	2.3
85	5.8	3.1	6.1	1.48	4.7	5.8	1.8	2.8	1.9
86	4.9	3.4	5.9	1.84	5.84	5.12	2	3	2.1
87	5.7	3.5	5.9	0.91	4.9	5.48	2.2	2.8	2.3
88	5.8	2.9	6	0.77	5.7	5.8	2.4	2.2	2
89	4.3	4.8	6.2	1.4	5.76	5.6	2.2	2.8	2.2
90	5.3	4	6	2.11	4.21	6.03	2.1	2.6	2.1
91	3.7	3.2	6	1.23	5.3	4.77	2.15	3.05	2.1
92	4.8	3.1	5.8	1.7	4	4.3	2.4	2.6	2.8
93	3.6	4.1	5.3	1.57	4.8	5.4	2.2	2.7	2.4
94	5.9	3.2	5.9	1.08	4.17	4.9	2.4	2.3	2.14
95	5.1	2.3	6.25	2.44	5.9	5.7	2.71	2.7	2.1
96	5.5	3.6	6.2	1.2	8	5	2.2	2.5	2.5
97	5.1	2.6	6	1.7	6.08	6.04	2.3	2.4	2.2
98	5.4	5.6	5.8	1.6	5.2	5.9	2.4	3.1	2.1
99	6	4	5.5	1.1	5.43	5.8	2.1	2.9	2.5
100	5.9	3	5.7	2.4	6.1	5.8	2.3	3.1	2.7

LAMPIRAN 1c. Data Hasil Pengukuran Pengembangan Ekstrudat

Ulangan	Radial (cm)								
	JG	MP	MM	SP	SM	KH	KHS	BMS	BM
1	1.1	1.11	0.86	0.94	0.98	0.77	1.31	1.3	1.01
2	1.2	1.1	0.89	1.06	0.79	0.8	1.2	1.21	1.1
3	1.22	1.02	1	1	0.92	0.76	1.25	1.22	1.14
4	1.1	1	0.79	0.94	0.85	0.92	1.2	1.3	0.9
5	1.16	0.9	0.9	1.05	0.9	0.77	1.32	1.28	1.02
6	1	1.02	0.82	0.93	0.73	0.74	1.29	1.2	1.04
7	1.12	1.07	0.8	1.02	0.84	0.9	1.2	1.24	1.1
8	1.3	1.03	0.88	0.85	0.76	0.75	1.24	1.2	0.95
9	1.1	0.95	1.02	1.1	0.9	0.76	1.2	1.22	1.22
10	1	1	0.97	1.02	0.94	0.78	1.19	1	1
11	1.24	1.03	0.8	1.07	0.9	0.76	1.2	1.31	1.1
12	1.2	1.04	0.84	0.93	0.8	0.78	1.16	1.2	1.09
13	1.21	1.1	0.85	1.1	1	0.73	1.3	1.19	1
14	1.1	1	0.87	1.1	0.8	0.79	1.2	1.16	1.2
15	1.2	1.19	0.91	1.13	0.9	0.78	1	1.08	1
16	1.14	1.1	0.9	0.94	0.8	0.87	1	1	1.12
17	1.1	1	0.98	1	0.98	0.76	1.11	1.3	1.15
18	1.26	1.23	0.85	0.93	1.01	0.74	1.3	1.2	1.23
19	1.2	0.98	0.9	0.96	0.96	0.78	1.34	1	1.2
20	1.1	0.99	0.99	1	0.89	0.85	1.2	1.18	0.92
21	1.34	0.95	0.82	0.92	0.94	0.7	1.1	1.2	1.1
22	1.1	1	0.9	1.14	0.96	0.7	1.3	1	0.95
23	1.19	1	0.8	0.97	0.91	0.75	1.05	1.2	1
24	1.1	0.92	0.92	1.02	0.9	0.74	1.2	1.11	1.12
25	1.15	0.99	0.97	1.06	0.98	0.79	1.31	1.3	1.15
26	1.4	1	0.9	1.1	0.85	0.8	1.26	1.15	0.96
27	1.11	1	0.9	0.92	0.9	0.74	1.2	1	1.1
28	1.23	0.91	0.96	0.9	0.99	0.79	1.16	1.21	1.1
29	1.21	1.01	1.03	0.95	0.82	0.72	1.3	1	1
30	1.1	1.1	0.89	1.01	0.9	0.7	1.08	1.14	1.02
31	1.16	0.88	0.9	1.08	0.8	0.65	1.2	1.1	1.08
32	1	0.84	0.9	1.04	0.96	0.7	1.3	1.22	1
33	1.1	1	1	1.07	1.03	0.77	1.23	1	1
34	1	1.02	1	1.03	0.89	0.65	1.02	1.31	1.1
35	1.1	1.14	1.03	0.9	0.9	0.75	1.2	1.2	1.02
36	1.06	1.1	0.9	1.1	0.9	0.76	1.1	1.19	1.11
37	1.2	1.09	0.86	1.14	1	0.7	1.2	1.16	1.12
38	1	0.92	0.9	1	0.97	0.8	1.06	1.08	0.95
39	1.16	0.9	0.91	1.17	0.79	0.7	1.14	1	1.2
40	1.1	1.02	0.97	0.93	0.85	0.77	1.3	1.3	1.15
41	1.23	1.21	1	0.96	0.8	0.75	1.32	1.3	1.12
42	1.4	0.94	0.9	1.04	0.9	0.78	1.1	1.21	1
43	1.05	1	0.95	1.02	0.89	0.7	1.3	1.27	1.1
44	1	1.02	0.93	1.05	0.9	0.64	1.25	1.3	1
45	1.2	0.99	0.96	1	0.9	0.65	1.4	1.28	1.1
46	1.12	1	0.96	0.92	1	0.69	0.99	1.2	1
47	1.1	1.03	0.99	1	0.9	0.7	1.2	1.24	1.05
48	1.15	1	0.9	1.1	0.95	0.72	1.32	1.2	0.98
49	1.2	1.1	0.96	1.14	0.87	0.75	11.2	1.22	1.23
50	1.1	0.88	1.02	1.07	0.99	0.69	1.2	1	1.25

LAMPIRAN 1d. Data Hasil Pengukuran Pengembangan Ekstrudat

Ulangan	Radial (cm)								
	JG	MP	MM	SP	SM	KH	KHS	BMS	BM
51	1.24	1	0.9	1	1.02	0.72	1.15	1.31	1
52	1.3	0.9	0.9	1.2	1	0.75	1.1	1.19	1.1
53	1.1	1	1	0.99	0.86	0.74	1.2	1.16	1.11
54	1	1.1	0.9	1.07	0.9	0.71	1.26	1.08	1.09
55	1.09	1.21	0.99	1.03	0.85	0.6	1.2	1	0.98
56	1	1.06	0.95	1.02	0.9	0.64	1.15	1.28	1.14
57	1	1	1	1	0.93	0.79	1.2	1.3	1.16
58	1.19	1.11	0.86	0.9	0.94	0.8	1.12	1.09	1.25
59	1.2	1.19	0.9	0.94	0.9	0.94	1.1	1.22	1
60	1	0.92	0.85	1.1	0.99	0.77	1.31	1.09	1.26
61	1	1	0.9	1.13	0.9	0.8	1.25	1	1
62	1.3	1.1	0.93	1.1	0.99	0.76	1.3	1.31	1.12
63	1.21	1	0.94	1.1	0.95	0.92	1.17	1.2	1.15
64	1.25	1.2	0.86	1.02	1	0.77	1.3	1.19	1
65	1.31	1	0.9	0.97	1.02	0.67	1.23	1.16	1
66	1.1	0.99	0.84	0.92	0.98	0.9	1.3	1.08	1.23
67	1.2	1	0.95	1	0.95	0.87	1.09	1	1.1
68	1.1	1.21	0.85	1.12	0.76	0.76	1.21	1.3	1.12
69	1.1	1	0.95	0.89	0.84	0.74	1.1	1.2	1.1
70	1.13	1	0.94	0.93	0.82	0.76	1.3	1.06	1
71	1.2	1	0.87	1	0.8	0.78	1.23	1.15	0.96
72	1.14	1.02	0.96	0.96	0.9	0.73	1.2	1.27	1.1
73	1.1	1	0.99	0.9	1	0.79	1.21	1.02	1.21
74	1	1.05	0.89	1.1	0.88	0.78	1.28	1	1.11
75	1.2	1.1	0.95	1.15	0.9	0.9	1.3	1.29	1
76	1.2	1	0.8	0.86	0.86	0.69	1.1	1.3	1.1
77	1.2	1	0.9	1	0.85	0.68	1.15	1.2	1.02
78	1.05	1.11	1	1.2	0.8	0.78	1.17	1.22	1.04
79	1.1	0.99	0.88	1.1	0.9	0.85	1.2	1.3	0.99
80	1.1	0.89	0.89	1.07	0.92	0.7	1	1	1
81	1.34	1	0.86	1.05	0.75	0.74	1.08	1.31	1.21
82	1.19	1.1	0.84	1.1	0.92	0.9	1	1.14	1
83	1.3	0.9	0.8	1	0.86	0.78	1.11	1.1	0.92
84	1.32	1	0.87	1.02	0.95	0.85	1.31	1.22	1.1
85	1.23	1.1	0.9	0.94	0.74	0.8	1.25	1	1
86	1.26	0.98	0.82	0.96	0.87	0.79	1	1.31	1
87	1.1	0.95	0.8	1.08	0.95	0.83	0.97	1.19	1.1
88	1.3	0.9	0.86	1.06	0.9	0.9	1.03	1.16	1.23
89	1.03	1	0.8	0.9	0.84	0.89	1.2	1.08	1.1
90	1	1	0.9	1.1	0.96	0.84	1.15	1	1.05
91	1.1	1.02	0.9	0.96	0.92	0.82	1.1	1.06	0.98
92	1.12	1.2	0.9	1.14	1	0.69	1.32	1.3	1
93	1	1.01	0.98	0.92	1.02	0.76	1.2	1.21	1
94	1.21	1.04	0.8	1.01	1	0.79	1.41	1.18	1.21
95	1.16	1	0.9	1.1	0.99	0.8	1.2	1.1	1.25
96	1.2	1	0.79	1.13	0.86	0.9	1.25	1.28	1
97	1.09	1	0.9	0.9	0.94	0.75	1.23	1.2	1.02
98	1.2	1.11	0.93	1.1	1	0.76	1.2	1.24	1.1
99	1	0.99	0.93	1.07	0.9	0.78	1.09	1.2	1.08
100	1.25	1.2	0.96	1.1	1.02	0.84	1.1	1.22	1.15

LAMPIRAN 1e. Data Hasil Pengukuran Pengembangan Ekstrudat

Ulangan	ER (cm)								
	JG	MP	MM	SP	SM	KH	KHS	BMS	BM
1	3.14	3.17	2.46	2.69	2.80	2.20	3.74	3.71	2.89
2	3.43	3.14	2.54	3.03	2.26	2.29	3.43	3.46	3.14
3	3.49	2.91	2.86	2.86	2.63	2.17	3.57	3.49	3.26
4	3.14	2.86	2.26	2.69	2.43	2.63	3.43	3.71	2.57
5	3.31	2.57	2.57	3.00	2.57	2.20	3.77	3.66	2.91
6	2.86	2.91	2.34	2.66	2.09	2.11	3.69	3.43	2.97
7	3.20	3.06	2.29	2.91	2.40	2.57	3.43	3.54	3.14
8	3.71	2.94	2.51	2.43	2.17	2.14	3.54	3.43	2.71
9	3.14	2.71	2.91	3.14	2.57	2.17	3.43	3.49	3.49
10	2.86	2.86	2.77	2.91	2.69	2.23	3.40	2.86	2.86
11	3.54	2.94	2.29	3.06	2.57	2.17	3.43	3.74	3.14
12	3.43	2.97	2.40	2.66	2.29	2.23	3.31	3.43	3.11
13	3.46	3.14	2.43	3.14	2.86	2.09	3.71	3.40	2.86
14	3.14	2.86	2.49	3.14	2.29	2.26	3.43	3.31	3.43
15	3.43	3.40	2.60	3.23	2.57	2.23	2.86	3.09	2.86
16	3.26	3.14	2.57	2.69	2.29	2.49	2.86	2.86	3.20
17	3.14	2.86	2.80	2.86	2.80	2.17	3.17	3.71	3.29
18	3.60	3.51	2.43	2.66	2.89	2.11	3.71	3.43	3.51
19	3.43	2.80	2.57	2.74	2.74	2.23	3.83	2.86	3.43
20	3.14	2.83	2.83	2.86	2.54	2.43	3.43	3.37	2.63
21	3.83	2.71	2.34	2.63	2.69	2.00	3.14	3.43	3.14
22	3.14	2.86	2.57	3.26	2.74	2.00	3.71	2.86	2.71
23	3.40	2.86	2.29	2.77	2.60	2.14	3.00	3.43	2.86
24	3.14	2.63	2.63	2.91	2.57	2.11	3.43	3.17	3.20
25	3.29	2.83	2.77	3.03	2.80	2.26	3.74	3.71	3.29
26	4.00	2.86	2.57	3.14	2.43	2.29	3.60	3.29	2.74
27	3.17	2.86	2.57	2.63	2.57	2.11	3.43	2.86	3.14
28	3.51	2.60	2.74	2.57	2.83	2.26	3.31	3.46	3.14
29	3.46	2.89	2.94	2.71	2.34	2.06	3.71	2.86	2.86
30	3.14	3.14	2.54	2.89	2.57	2.00	3.09	3.26	2.91
31	3.31	2.51	2.57	3.09	2.29	1.86	3.43	3.14	3.09
32	2.86	2.40	2.57	2.97	2.74	2.00	3.71	3.49	2.86
33	3.14	2.86	2.86	3.06	2.94	2.20	3.51	2.86	2.86
34	2.86	2.91	2.86	2.94	2.54	1.86	2.91	3.74	3.14
35	3.14	3.26	2.94	2.57	2.57	2.14	3.43	3.43	2.91
36	3.03	3.14	2.57	3.14	2.57	2.17	3.14	3.40	3.17
37	3.43	3.11	2.46	3.26	2.86	2.00	3.43	3.31	3.20
38	2.86	2.63	2.57	2.86	2.77	2.29	3.03	3.09	2.71
39	3.31	2.57	2.60	3.34	2.26	2.00	3.26	2.86	3.43
40	3.14	2.91	2.77	2.66	2.43	2.20	3.71	3.71	3.29
41	3.51	3.46	2.86	2.74	2.29	2.14	3.77	3.71	3.20
42	4.00	2.69	2.57	2.97	2.57	2.23	3.14	3.46	2.86
43	3.00	2.86	2.71	2.91	2.54	2.00	3.71	3.63	3.14
44	2.86	2.91	2.66	3.00	2.57	1.83	3.57	3.71	2.86
45	3.43	2.83	2.74	2.86	2.57	1.86	4.00	3.66	3.14
46	3.20	2.86	2.74	2.63	2.86	1.97	2.83	3.43	2.86
47	3.14	2.94	2.83	2.86	2.57	2.00	3.43	3.54	3.00
48	3.29	2.86	2.57	3.14	2.71	2.06	3.77	3.43	2.80
49	3.43	3.14	2.74	3.26	2.49	2.14	32.00	3.49	3.51
50	3.14	2.51	2.91	3.06	2.83	1.97	3.43	2.86	3.57

LAMPIRAN 1f. Data Hasil Pengukuran Pengembangan Ekstrudat

Ulangan	ER (cm)								
	JG	MP	MM	SP	SM	KH	KHS	BMS	BM
51	3.54	2.86	2.57	2.86	2.91	2.06	3.29	3.74	2.86
52	3.71	2.57	2.57	3.43	2.86	2.14	3.14	3.40	3.14
53	3.14	2.86	2.86	2.83	2.46	2.11	3.43	3.31	3.17
54	2.86	3.14	2.57	3.06	2.57	2.03	3.60	3.09	3.11
55	3.11	3.46	2.83	2.94	2.43	1.71	3.43	2.86	2.80
56	2.86	3.03	2.71	2.91	2.57	1.83	3.29	3.66	3.26
57	2.86	2.86	2.86	2.86	2.66	2.26	3.43	3.71	3.31
58	3.40	3.17	2.46	2.57	2.69	2.29	3.20	3.11	3.57
59	3.43	3.40	2.57	2.69	2.57	2.69	3.14	3.49	2.86
60	2.86	2.63	2.43	3.14	2.83	2.20	3.74	3.11	3.60
61	2.86	2.86	2.57	3.23	2.57	2.29	3.57	2.86	2.86
62	3.71	3.14	2.66	3.14	2.83	2.17	3.71	3.74	3.20
63	3.46	2.86	2.69	3.14	2.71	2.63	3.34	3.43	3.29
64	3.57	3.43	2.46	2.91	2.86	2.20	3.71	3.40	2.86
65	3.74	2.86	2.57	2.77	2.91	1.91	3.51	3.31	2.86
66	3.14	2.83	2.40	2.63	2.80	2.57	3.71	3.09	3.51
67	3.43	2.86	2.71	2.86	2.71	2.49	3.11	2.86	3.14
68	3.14	3.46	2.43	3.20	2.17	2.17	3.46	3.71	3.20
69	3.14	2.86	2.71	2.54	2.40	2.11	3.14	3.43	3.14
70	3.23	2.86	2.69	2.66	2.34	2.17	3.71	3.03	2.86
71	3.43	2.86	2.49	2.86	2.29	2.23	3.51	3.29	2.74
72	3.26	2.91	2.74	2.74	2.57	2.09	3.43	3.63	3.14
73	3.14	2.86	2.83	2.57	2.86	2.26	3.46	2.91	3.46
74	2.86	3.00	2.54	3.14	2.51	2.23	3.66	2.86	3.17
75	3.43	3.14	2.71	3.29	2.57	2.57	3.71	3.69	2.86
76	3.43	2.86	2.29	2.46	2.46	1.97	3.14	3.71	3.14
77	3.43	2.86	2.57	2.86	2.43	1.94	3.29	3.43	2.91
78	3.00	3.17	2.86	3.43	2.29	2.23	3.34	3.49	2.97
79	3.14	2.83	2.51	3.14	2.57	2.43	3.43	3.71	2.83
80	3.14	2.54	2.54	3.06	2.63	2.00	2.86	2.86	2.86
81	3.83	2.86	2.46	3.00	2.14	2.11	3.09	3.74	3.46
82	3.40	3.14	2.40	3.14	2.63	2.57	2.86	3.26	2.86
83	3.71	2.57	2.29	2.86	2.46	2.23	3.17	3.14	2.63
84	3.77	2.86	2.49	2.91	2.71	2.43	3.74	3.49	3.14
85	3.51	3.14	2.57	2.69	2.11	2.29	3.57	2.86	2.86
86	3.60	2.80	2.34	2.74	2.49	2.26	2.86	3.74	2.86
87	3.14	2.71	2.29	3.09	2.71	2.37	2.77	3.40	3.14
88	3.71	2.57	2.46	3.03	2.57	2.57	2.94	3.31	3.51
89	2.94	2.86	2.29	2.57	2.40	2.54	3.43	3.09	3.14
90	2.86	2.86	2.57	3.14	2.74	2.40	3.29	2.86	3.00
91	3.14	2.91	2.57	2.74	2.63	2.34	3.14	3.03	2.80
92	3.20	3.43	2.57	3.26	2.86	1.97	3.77	3.71	2.86
93	2.86	2.89	2.80	2.63	2.91	2.17	3.43	3.46	2.86
94	3.46	2.97	2.29	2.89	2.86	2.26	4.03	3.37	3.46
95	3.31	2.86	2.57	3.14	2.83	2.29	3.43	3.14	3.57
96	3.43	2.86	2.26	3.23	2.46	2.57	3.57	3.66	2.86
97	3.11	2.86	2.57	2.57	2.69	2.14	3.51	3.43	2.91
98	3.43	3.17	2.66	3.14	2.86	2.17	3.43	3.54	3.14
99	2.86	2.83	2.66	3.06	2.57	2.23	3.11	3.43	3.09
100	3.57	3.43	2.74	3.14	2.91	2.40	3.14	3.49	3.29

LAMPIRAN 2a. Analisa Data Pengembangan Ekstrudat

ANOVA

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
MEAN(AXIAL,2)	Between Groups	2213.009	8	276.626	1331.366	.000
	Within Groups	185.129	891	.208		
	Total	2398.137	899			
MEAN(RADIAL,2)	Between Groups	16.071	8	2.009	285.875	.000
	Within Groups	6.261	891	7.027E-03		
	Total	22.332	899			
MEAN(EXP_RATI,:	Between Groups	131.238	8	16.405	285.955	.000
	Within Groups	51.115	891	5.737E-02		
	Total	182.353	899			

POST HOC TEST

MEAN(AXIAL,2)

Duncan[a]

(1.00,jg) ; (2.00,sp) (3.00,sm) ; (4.00,mp	N	Subset for alpha = .05						
		1	2	3	4	5	6	7
sp	100	1.9782						
khs	100		2.3238					
bm	100			2.4711				
bms	100				2.7265			
mp	100					3.4254		
jg	100						5.1836	
sm	100							5.7187
mm	100							5.7935
kh	100							5.8449
Sig.		1.000	1.000	1.000	1.000	1.000	1.000	.064

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LAMPIRAN 2b. Analisa Data Pengembangan Ekstrudat

MEAN(RADIAL,2)

Duncan[a]

(1.00,jg) ; (2.00,sp) ; (3.00,sm) ; (4.00,mp	N	Subset for alpha = .05					
		1	2	3	4	5	6
kh	100	.7679					
sm	100		.9067				
mm	100		.9073				
sp	100			1.0223			
mp	100			1.0247			
bm	100				1.0749		
jg	100					1.1436	
bms	100						1.1735
khs	100						1.1928
Sig.		1.000	.961	.840	1.000	1.000	.104

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

MEAN(EXP_RATI,2)

Duncan[a]

(1.00,jg) ; (2.00,sp) ; (3.00,sm) ; (4.00,mp)	N	Subset for alpha = .05					
		1	2	3	4	5	6
kh	100	2.1940					
sm	100		2.5906				
mm	100		2.5923				
sp	100			2.9209			
mp	100			2.9277			
bm	100				3.0711		
jg	100					3.2675	
bms	100						3.3529
khs	100						3.4085
Sig.		1.000	.961	.840	1.000	1.000	.100

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

LAMPIRAN 3a. Data Hasil Pengukuran *Bulk Density*

Sampel	Ulangan	Berat (g)	BD (g/cm3)	Sampel	Ulangan	Berat (g)	BD (g/cm3)
Jagung	1	6.86	0.0219	Sorgum Merah	1	7.87	0.0269
Jagung	2	6.42	0.0224	Sorgum Merah	2	7.44	0.0254
Jagung	3	6.56	0.0224	Sorgum Merah	3	8.04	0.0275
Jagung	4	6.56	0.0224	Sorgum Merah	4	7.68	0.0262
Jagung	5	6.17	0.0211	Sorgum Merah	5	8.64	0.0295
Jagung	6	6.87	0.0235	Sorgum Merah	6	8.42	0.0288
Jagung	7	6.48	0.0221	Sorgum Merah	7	8.1	0.0277
Jagung	8	6.48	0.0221	Sorgum Merah	8	8.55	0.0292
Jagung	9	6.38	0.0218	Sorgum Merah	9	8.47	0.0289
Jagung	10	6.56	0.0224	Sorgum Merah	10	7.69	0.0263
Jagung	11	5.77	0.0197	Sorgum Merah	11	7.96	0.0272
Jagung	12	7.43	0.0254	Sorgum Merah	12	8.04	0.0275
Jagung	13	7.41	0.0253	Sorgum Merah	13	7.93	0.0271
Jagung	14	6.92	0.0237	Sorgum Merah	14	7.77	0.0266
Jagung	15	6.62	0.0226	Sorgum Merah	15	8.04	0.0275
Jagung	16	6.57	0.0225	Sorgum Merah	16	8.33	0.0285
Jagung	17	6.91	0.0236	Sorgum Merah	17	6.93	0.0237
Jagung	18	6.78	0.0232	Sorgum Merah	18	7.94	0.0271
Jagung	19	6.36	0.0217	Sorgum Merah	19	7.52	0.0257
Jagung	20	6.2	0.0212	Sorgum Merah	20	7.54	0.0258
Sorgum Putih	1	32.08	0.0968	Milet Putih	1	12.39	0.0423
Sorgum Putih	2	30.08	0.0908	Milet Putih	2	11.99	0.0410
Sorgum Putih	3	33.75	0.1019	Milet Putih	3	12.58	0.0430
Sorgum Putih	4	30.38	0.0917	Milet Putih	4	11.68	0.0399
Sorgum Putih	5	30.26	0.0913	Milet Putih	5	12.39	0.0423
Sorgum Putih	6	28.55	0.0862	Milet Putih	6	12.24	0.0418
Sorgum Putih	7	30.7	0.0927	Milet Putih	7	11.89	0.0406
Sorgum Putih	8	29.68	0.0896	Milet Putih	8	11.97	0.0409
Sorgum Putih	9	30.75	0.0928	Milet Putih	9	12.35	0.0422
Sorgum Putih	10	30.25	0.0913	Milet Putih	10	11.93	0.0408
Sorgum Putih	11	32.96	0.0995	Milet Putih	11	12.11	0.0414
Sorgum Putih	12	28.9	0.0872	Milet Putih	12	12.3	0.0420
Sorgum Putih	13	33.12	0.1000	Milet Putih	13	11.39	0.0389
Sorgum Putih	14	30.17	0.0911	Milet Putih	14	11.64	0.0398
Sorgum Putih	15	30.08	0.0908	Milet Putih	15	12.27	0.0419
Sorgum Putih	16	30.3	0.0915	Milet Putih	16	10.78	0.0368
Sorgum Putih	17	31.75	0.0958	Milet Putih	17	11.02	0.0377
Sorgum Putih	18	30.16	0.0910	Milet Putih	18	12.35	0.0422
Sorgum Putih	19	29.96	0.0904	Milet Putih	19	12.95	0.0443
Sorgum Putih	20	28.48	0.0860	Milet Putih	20	11.34	0.0388

LAMPIRAN 3b. Data Hasil Pengukuran *Bulk Density*

Sampel	Ulangan	Berat (g)	BD (g/cm3)	Sampel	Ulangan	Berat (g)	BD (g/cm3)
Milet Merah	1	9.57	0.0327	B.M. Sosoh	1	22.58	0.0772
Milet Merah	2	10.32	0.0353	B.M. Sosoh	2	19.48	0.0666
Milet Merah	3	10.76	0.0368	B.M. Sosoh	3	20.76	0.0710
Milet Merah	4	9.45	0.0323	B.M. Sosoh	4	19.75	0.0675
Milet Merah	5	9.2	0.0314	B.M. Sosoh	5	20.59	0.0704
Milet Merah	6	10.71	0.0366	B.M. Sosoh	6	19.42	0.0664
Milet Merah	7	9.01	0.0308	B.M. Sosoh	7	18.98	0.0649
Milet Merah	8	10.76	0.0368	B.M. Sosoh	8	20.51	0.0701
Milet Merah	9	9.75	0.0333	B.M. Sosoh	9	20.58	0.0703
Milet Merah	10	9.62	0.0329	B.M. Sosoh	10	21.23	0.0726
Milet Merah	11	10.54	0.0360	B.M. Sosoh	11	19.93	0.0681
Milet Merah	12	11.05	0.0378	B.M. Sosoh	12	19.21	0.0657
Milet Merah	13	11.45	0.0391	B.M. Sosoh	13	21.35	0.0730
Milet Merah	14	9.94	0.0340	B.M. Sosoh	14	20.83	0.0712
Milet Merah	15	10.55	0.0361	B.M. Sosoh	15	21.22	0.0725
Milet Merah	16	11.32	0.0387	B.M. Sosoh	16	20.01	0.0684
Milet Merah	17	11.04	0.0377	B.M. Sosoh	17	20.69	0.0707
Milet Merah	18	11.29	0.0386	B.M. Sosoh	18	21.43	0.0732
Milet Merah	19	10.52	0.0360	B.M. Sosoh	19	21.9	0.0748
Milet Merah	20	10.73	0.0367	B.M. Sosoh	20	21.4	0.0731
Beras Merah	1	16.87	0.0577	Ketan Hitam	1	11.86	0.0405
Beras Merah	2	16.35	0.0559	Ketan Hitam	2	13.89	0.0475
Beras Merah	3	18.8	0.0643	Ketan Hitam	3	12.82	0.0438
Beras Merah	4	16.02	0.0548	Ketan Hitam	4	13.5	0.0461
Beras Merah	5	19.56	0.0668	Ketan Hitam	5	13.73	0.0469
Beras Merah	6	17.16	0.0586	Ketan Hitam	6	13.26	0.0453
Beras Merah	7	16.63	0.0568	Ketan Hitam	7	11.74	0.0401
Beras Merah	8	15.85	0.0542	Ketan Hitam	8	13.53	0.0462
Beras Merah	9	17.64	0.0603	Ketan Hitam	9	14.31	0.0489
Beras Merah	10	15.61	0.0533	Ketan Hitam	10	13.62	0.0465
Beras Merah	11	16.36	0.0559	Ketan Hitam	11	12.72	0.0435
Beras Merah	12	17.53	0.0599	Ketan Hitam	12	13.24	0.0452
Beras Merah	13	16.98	0.0580	Ketan Hitam	13	11.9	0.0407
Beras Merah	14	16.08	0.0550	Ketan Hitam	14	12.73	0.0435
Beras Merah	15	17.77	0.0607	Ketan Hitam	15	13.91	0.0475
Beras Merah	16	16.44	0.0562	Ketan Hitam	16	13.86	0.0474
Beras Merah	17	17.7	0.0605	Ketan Hitam	17	12.27	0.0419
Beras Merah	18	17.11	0.0585	Ketan Hitam	18	12.92	0.0442
Beras Merah	19	16.85	0.0576	Ketan Hitam	19	12.71	0.0434
Beras Merah	20	15.65	0.0535	Ketan Hitam	20	12.95	0.0443

LAMPIRAN 3c. Data Hasil Pengukuran *Bulk Density*

Sampel	Ulangan	Berat (g)	BD (g/cm3)
K.H. Sosoh	1	20.44	0.0699
K.H. Sosoh	2	18.14	0.0620
K.H. Sosoh	3	19.69	0.0673
K.H. Sosoh	4	18.91	0.0646
K.H. Sosoh	5	19.06	0.0651
K.H. Sosoh	6	18.27	0.0624
K.H. Sosoh	7	19.19	0.0656
K.H. Sosoh	8	20.54	0.0702
K.H. Sosoh	9	19.34	0.0661
K.H. Sosoh	10	19.81	0.0677
K.H. Sosoh	11	20.14	0.0688
K.H. Sosoh	12	20.23	0.0691
K.H. Sosoh	13	19.43	0.0664
K.H. Sosoh	14	19.89	0.0680
K.H. Sosoh	15	19.52	0.0667
K.H. Sosoh	16	20.36	0.0696
K.H. Sosoh	17	19.82	0.0677
K.H. Sosoh	18	18.87	0.0645
K.H. Sosoh	19	19.47	0.0665
K.H. Sosoh	20	20.41	0.0698

LAMPIRAN 4. Analisa Data *Bulk Density* Ekstrudat

UJI NORMALITAS

Tests of Normality

	SAMPEL	Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
LINT(BULKDENS	jg	,284	20	,000	,876	20	,015
	sp	,192	20	,051	,898	20	,040
	sm	,228	20	,008	,942	20	,328
	mp	,183	20	,078	,944	20	,349
	mm	,168	20	,143	,918	20	,094
	bm	,115	20	,200*	,968	20	,675
	bms	,141	20	,200*	,958	20	,486
	kh	,127	20	,200*	,965	20	,618
	khs	,114	20	,200*	,923	20	,131

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

a. Lilliefors Significance Correction

ANOVA

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
LINT(BULKDENS)	Between Groups	8,213E-02	8	1,027E-02	1624,516	,000
	Within Groups	1,081E-03	171	6,320E-06		
	Total	8,321E-02	179			

POST HOC TEST

LINT(BULKDENS)

Duncan[a]

SAMPEL	N	Subset for alpha = .05 1	2	3	4	5	6	7	8	9
jg	20	2,24E-02								
sm	20		2,71E-02							
mm	20			3,56E-02						
mp	20				4,11E-02					
kh	20					4,47E-02				
bm	20						5,74E-02			
khs	20							6,70E-02		
bms	20								7,04E-02	
sp	20									9,19E-02
Sig.		1,000	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

LAMPIRAN 5. Data Pengukuran *Breaking Strength Ekstrudat*

No.	Sampel	Ulangan	*Breaking Strength* (N)
1	Jagung	1	24.37
2	Jagung	2	22.11
3	Jagung	3	17.18
4	Sorgum Putih	1	43.53
5	Sorgum Putih	2	73.69
6	Sorgum Putih	3	91.18
7	Sorgum Merah	1	27.12
8	Sorgum Merah	2	23.97
9	Sorgum Merah	3	21.81
10	Milet Putih	1	79.78
11	Milet Putih	2	67.99
12	Milet Putih	3	34.39
13	Milet Merah	1	24.76
14	Milet Merah	2	21.03
15	Milet Merah	3	22.2
16	Beras Merah	1	36.55
17	Beras Merah	2	37.34
18	Beras Merah	3	38.91
19	Beras Merah Sosoh	1	62.1
20	Beras Merah Sosoh	2	84.3
21	Beras Merah Sosoh	3	57.58
22	Ketan Hitam	1	53.06
23	Ketan Hitam	2	58.75
24	Ketan Hitam	3	60.33
25	Ketan Hitam Sosoh	1	74.08
26	Ketan Hitam Sosoh	2	67.2
27	Ketan Hitam Sosoh	3	76.64

LAMPIRAN 6a. Analisa Data *Breaking Strength* Ekstrudat

UJI NORMALITAS
NPAR K-S Test

One-Sample Kolmogorov-Smirnov Test

			BREAKING
N			27
Normal Parameters	a,b	Mean	48.2204
		Std. Deviation	23.2436
Most Extreme Differences		Absolute	.151
		Positive	.151
		Negative	-.101
Kolmogorov-Smimov Z			.786
Asymp. Sig. (2-tailed)			.566

a. Test distribution is Normal.

b. Calculated from data.

LAMPIRAN 7. Data Pengukuran Intensitas Warna Ekstrudat

No.	Sampel	Ulangan	Intensitas Warna
1	Jagung	1	85.86
2	Jagung	2	77.01
3	Jagung	3	83.49
4	Sorgum Putih	1	71.39
5	Sorgum Putih	2	64.14
6	Sorgum Putih	3	74.31
7	Sorgum Merah	1	62.53
8	Sorgum Merah	2	65.79
9	Sorgum Merah	3	65.21
10	Milet Putih	1	75.17
11	Milet Putih	2	74.51
12	Milet Putih	3	76.32
13	Milet Merah	1	68.52
14	Milet Merah	2	73.37
15	Milet Merah	3	69.62
16	Beras Merah	1	71.56
17	Beras Merah	2	72.81
18	Beras Merah	3	71.09
19	Beras Merah Sosoh	1	63.85
20	Beras Merah Sosoh	2	63.82
21	Beras Merah Sosoh	3	61.31
22	Ketan Hitam	1	60.63
23	Ketan Hitam	2	61.85
24	Ketan Hitam	3	67.02
25	Ketan Hitam Sosoh	1	60.65
26	Ketan Hitam Sosoh	2	58.96
27	Ketan Hitam Sosoh	3	59.15

LAMPIRAN 8a. Analisa Data Intensitas Warna Ekstrudat

UJI NORMALITAS
NPAR K-S Test

One-Sample Kolmogorov-Smirnov Test

		IN_WARNA
N		27
Normal Parameters [a,b]	Mean	68.8867
	Std. Deviation	7.2175
Most Extreme Differences	Absolute	.115
	Positive	.115
	Negative	-.085
Kolmogorov-Smirnov Z		.598
Asymp. Sig. (2-tailed)		.868

a. Test distribution is Normal.

b. Calculated from data.

LAMPIRAN 8b. Analisa Data Intensitas Warna Ekstrudat

ANOVA

ANOVA

IN_WARNA

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		1206.352	8	150.794	18.335	.000
	Linear Term	Contrast	684.684	1	684.684	83.252	.000
		Deviation	521.668	7	74.524	9.061	.000
Within Groups			148.036	18	8.224		
Total			1354.388	26			

POST HOC TEST

IN_WARNA

Duncan [a]

Sampel	N	Subset for alpha = .05			
		1	2	3	4
khs	3	59.5867			
bms	3	62.9933			
kh	3	63.1667			
sm	3	64.5100			
sp	3		69.9467		
mm	3		70.5033	70.5033	
bm	3		71.8200	71.8200	
mp	3			75.3333	
jg	3				82.1200
Sig.		.068	.459	.065	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 9a. Data Hasil Uji Sensoris Ekstrudat

Sampel	Ulangan	Warna	Tekstur	Rasa	Aroma	Penampilan Keseluruhan
Jagung	1	5	4	5	5	5
Jagung	2	5	4	5	4	5
Jagung	3	5	4	3	3	4
Jagung	4	5	4	3	3	4
Jagung	5	5	4	4	3	4
Jagung	6	4	2	3	3	3
Jagung	7	5	3	5	5	5
Jagung	8	5	3	5	3	4
Jagung	9	5	4	5	5	4
Jagung	10	4	5	3	3	5
Jagung	11	4	4	4	4	4
Jagung	12	4	3	2	4	4
Jagung	13	5	4	4	4	4
Jagung	14	5	5	5	3	5
Jagung	15	4	3	4	4	4
Jagung	16	4	3	2	3	3
Jagung	17	4	4	3	4	4
Jagung	18	5	3	4	5	5
Jagung	19	4	4	3	3	5
Jagung	20	5	2	2	3	4
Jagung	21	5	3	4	3	4
Jagung	22	5	4	4	4	4
Jagung	23	5	5	5	5	5
Jagung	24	5	2	1	4	4
Jagung	25	5	5	5	5	5
Sorgum Putih	1	2	1	1	4	3
Sorgum Putih	2	3	2	2	4	2
Sorgum Putih	3	3	3	1	3	2
Sorgum Putih	4	2	2	3	2	3
Sorgum Putih	5	1	2	2	3	3
Sorgum Putih	6	2	2	1	4	1
Sorgum Putih	7	3	3	2	3	2
Sorgum Putih	8	2	1	1	3	3
Sorgum Putih	9	1	2	2	4	2
Sorgum Putih	10	3	2	3	3	2
Sorgum Putih	11	3	3	2	5	3
Sorgum Putih	12	2	1	1	3	2
Sorgum Putih	13	3	1	2	3	3
Sorgum Putih	14	1	2	2	4	2
Sorgum Putih	15	4	4	3	3	1
Sorgum Putih	16	2	2	2	5	2
Sorgum Putih	17	3	1	2	4	3
Sorgum Putih	18	2	2	3	2	2
Sorgum Putih	19	3	2	2	4	2
Sorgum Putih	20	1	1	2	3	2
Sorgum Putih	21	2	2	2	3	2
Sorgum Putih	22	3	1	2	3	3
Sorgum Putih	23	2	2	2	3	3
Sorgum Putih	24	4	2	2	3	2
Sorgum Putih	25	3	5	1	4	3

LAMPIRAN 9b. Data Hasil Uji Sensoris Ekstrudat

Sampel	Ulangan	Warna	Tekstur	Rasa	Aroma	Penampilan Keseluruhan
Sorgum Merah	1	2	2	1	1	2
Sorgum Merah	2	3	2	2	4	4
Sorgum Merah	3	2	2	2	3	2
Sorgum Merah	4	4	1	1	3	2
Sorgum Merah	5	4	2	3	3	3
Sorgum Merah	6	2	1	2	2	2
Sorgum Merah	7	5	1	1	3	3
Sorgum Merah	8	2	1	2	3	2
Sorgum Merah	9	4	2	2	3	1
Sorgum Merah	10	2	2	2	2	1
Sorgum Merah	11	3	2	1	3	2
Sorgum Merah	12	3	2	2	2	2
Sorgum Merah	13	3	4	3	4	4
Sorgum Merah	14	4	1	3	3	3
Sorgum Merah	15	2	2	2	3	2
Sorgum Merah	16	2	1	1	3	2
Sorgum Merah	17	3	3	2	3	2
Sorgum Merah	18	3	1	2	3	2
Sorgum Merah	19	2	2	2	3	1
Sorgum Merah	20	4	2	1	3	2
Sorgum Merah	21	3	2	2	3	2
Sorgum Merah	22	4	2	2	4	2
Sorgum Merah	23	4	1	1	3	2
Sorgum Merah	24	3	1	2	2	2
Sorgum Merah	25	2	2	2	2	1
Milet Putih	1	3	3	1	4	3
Milet Putih	2	3	2	4	3	3
Milet Putih	3	3	3	2	3	3
Milet Putih	4	2	2	1	3	2
Milet Putih	5	4	4	2	3	4
Milet Putih	6	2	2	1	2	2
Milet Putih	7	2	4	2	3	2
Milet Putih	8	2	1	1	3	2
Milet Putih	9	3	3	2	3	3
Milet Putih	10	2	3	2	3	3
Milet Putih	11	3	3	2	3	3
Milet Putih	12	4	2	2	4	3
Milet Putih	13	3	4	2	4	3
Milet Putih	14	3	3	4	3	4
Milet Putih	15	3	3	2	3	3
Milet Putih	16	2	3	2	3	3
Milet Putih	17	3	3	2	3	3
Milet Putih	18	3	2	2	3	3
Milet Putih	19	2	3	2	2	3
Milet Putih	20	4	2	2	3	3
Milet Putih	21	3	4	2	3	3
Milet Putih	22	4	4	1	3	3
Milet Putih	23	4	4	2	4	5
Milet Putih	24	3	3	1	3	2
Milet Putih	25	3	3	2	3	2

LAMPIRAN 9c. Data Hasil Uji Sensoris Ekstrudat

Sampel	Ulangan	Warna	Tekstur	Rasa	Aroma	Penampilan Keseluruhan
Milet Merah	1	3	5	4	3	4
Milet Merah	2	3	3	3	3	3
Milet Merah	3	2	3	2	3	2
Milet Merah	4	1	3	2	3	2
Milet Merah	5	3	5	2	3	2
Milet Merah	6	2	3	2	2	3
Milet Merah	7	2	5	2	4	2
Milet Merah	8	2	4	2	3	3
Milet Merah	9	3	4	2	3	2
Milet Merah	10	2	4	2	4	4
Milet Merah	11	3	4	3	3	2
Milet Merah	12	3	2	3	3	4
Milet Merah	13	3	5	1	3	3
Milet Merah	14	2	4	4	3	3
Milet Merah	15	2	3	4	3	2
Milet Merah	16	2	4	2	3	3
Milet Merah	17	3	3	2	4	3
Milet Merah	18	3	4	2	3	3
Milet Merah	19	2	4	1	3	2
Milet Merah	20	3	3	2	3	4
Milet Merah	21	3	5	1	3	2
Milet Merah	22	3	4	2	4	3
Milet Merah	23	3	4	2	3	2
Milet Merah	24	2	4	2	3	2
Milet Merah	25	3	4	2	3	4
Beras Merah	1	2	2	2	3	3
Beras Merah	2	2	2	2	3	3
Beras Merah	3	2	2	3	3	3
Beras Merah	4	2	2	2	3	2
Beras Merah	5	4	2	3	3	3
Beras Merah	6	2	2	2	2	2
Beras Merah	7	2	2	3	3	2
Beras Merah	8	2	2	2	3	2
Beras Merah	9	3	2	3	3	2
Beras Merah	10	2	3	3	3	3
Beras Merah	11	3	3	1	3	3
Beras Merah	12	4	3	2	2	3
Beras Merah	13	3	3	3	3	3
Beras Merah	14	3	3	4	3	4
Beras Merah	15	2	3	3	3	3
Beras Merah	16	3	3	2	3	3
Beras Merah	17	2	3	2	3	2
Beras Merah	18	1	1	1	1	1
Beras Merah	19	2	1	2	2	2
Beras Merah	20	2	4	2	3	3
Beras Merah	21	4	4	3	3	4
Beras Merah	22	3	4	2	2	3
Beras Merah	23	2	4	2	4	4
Beras Merah	24	3	4	2	1	2
Beras Merah	25	3	3	3	3	3

LAMPIRAN 9d. Data Hasil Uji Sensoris Ekstrudat

Sampel	Ulangan	Warna	Tekstur	Rasa	Aroma	Penampilan Keseluruhan
B.M. Sosoh	1	4	3	4	4	4
B.M. Sosoh	2	2	2	3	3	3
B.M. Sosoh	3	2	3	3	3	2
B.M. Sosoh	4	2	2	2	3	2
B.M. Sosoh	5	4	3	4	3	4
B.M. Sosoh	6	3	2	2	2	2
B.M. Sosoh	7	3	4	3	3	3
B.M. Sosoh	8	3	3	4	3	4
B.M. Sosoh	9	3	3	2	4	3
B.M. Sosoh	10	2	5	3	4	4
B.M. Sosoh	11	4	4	3	3	3
B.M. Sosoh	12	3	3	3	3	3
B.M. Sosoh	13	3	5	4	4	4
B.M. Sosoh	14	3	3	4	3	4
B.M. Sosoh	15	3	2	2	3	3
B.M. Sosoh	16	3	3	3	3	3
B.M. Sosoh	17	3	3	3	3	3
B.M. Sosoh	18	2	2	2	2	2
B.M. Sosoh	19	3	3	3	2	3
B.M. Sosoh	20	4	3	3	3	4
B.M. Sosoh	21	4	4	4	3	4
B.M. Sosoh	22	4	5	4	3	4
B.M. Sosoh	23	2	4	4	4	4
B.M. Sosoh	24	3	4	2	2	3
B.M. Sosoh	25	3	5	3	3	4
Ketan Hitam	1	2	5	3	3	2
Ketan Hitam	2	2	3	3	3	2
Ketan Hitam	3	2	3	2	3	2
Ketan Hitam	4	1	2	2	3	2
Ketan Hitam	5	1	2	3	3	2
Ketan Hitam	6	1	4	3	2	2
Ketan Hitam	7	1	4	2	2	2
Ketan Hitam	8	1	5	2	3	3
Ketan Hitam	9	2	3	3	3	1
Ketan Hitam	10	1	3	1	1	3
Ketan Hitam	11	3	4	1	3	2
Ketan Hitam	12	2	3	1	3	4
Ketan Hitam	13	4	5	4	4	4
Ketan Hitam	14	2	3	2	3	1
Ketan Hitam	15	1	3	1	2	1
Ketan Hitam	16	1	2	2	3	2
Ketan Hitam	17	2	4	1	2	2
Ketan Hitam	18	2	3	3	3	2
Ketan Hitam	19	2	5	4	2	2
Ketan Hitam	20	2	3	1	2	4
Ketan Hitam	21	3	4	3	3	2
Ketan Hitam	22	4	2	2	3	2
Ketan Hitam	23	1	4	3	3	2
Ketan Hitam	24	2	4	1	2	1
Ketan Hitam	25	2	3	4	4	2

LAMPIRAN 9e. Data Hasil Uji Sensoris Ekstrudat

Sampel	Ulangan	Warna	Tekstur	Rasa	Aroma	Penampilan Keseluruhan
K.H. Sosoh	1	2	4	4	4	3
K.H. Sosoh	2	1	2	5	5	2
K.H. Sosoh	3	1	2	2	2	1
K.H. Sosoh	4	1	1	1	1	1
K.H. Sosoh	5	2	1	3	3	2
K.H. Sosoh	6	2	4	2	2	2
K.H. Sosoh	7	1	4	3	3	1
K.H. Sosoh	8	5	5	5	5	4
K.H. Sosoh	9	2	5	4	4	2
K.H. Sosoh	10	2	4	1	1	3
K.H. Sosoh	11	2	4	2	2	3
K.H. Sosoh	12	4	3	1	1	1
K.H. Sosoh	13	5	5	5	5	5
K.H. Sosoh	14	1	5	4	4	2
K.H. Sosoh	15	4	3	3	3	3
K.H. Sosoh	16	1	5	2	2	3
K.H. Sosoh	17	3	3	3	3	2
K.H. Sosoh	18	2	4	2	2	2
K.H. Sosoh	19	1	1	1	1	1
K.H. Sosoh	20	4	4	4	1	3
K.H. Sosoh	21	4	5	5	4	4
K.H. Sosoh	22	5	5	5	3	4
K.H. Sosoh	23	1	5	5	4	4
K.H. Sosoh	24	2	5	5	3	3
K.H. Sosoh	25	5	5	3	3	4

LAMPIRAN 10a. Analisa Data SENSORIS Ekstrudat

ANOVA Warna Ekstrudat

ANOVA

WARNA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	155.041	8	19.380	53.146	.000
Within Groups	70.014	192	.365		
Total	225.055	200			

Post Hoc Tests Warna Ekstrudat

WARNA

Duncan[a,b]

SAMPEL1	N	Subset for alpha = .05				
		1	2	3	4	5
khs	17	1.5294				
kh	21	1.5714				
bm	21		2.3810			
sp	19		2.5263			
mm	24		2.5833	2.5833		
sm	24			2.9167	2.9167	
mp	25			2.9200	2.9200	
bms	25				3.0000	
jg	25					4.6800
Sig.		.818	.298	.080	.670	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 21.950.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

LAMPIRAN 10b. Analisa Data SENSORIS Ekstrudat

ANOVA Tekstur Ekstrudat

ANOVA

TEKSTUR

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	161.328	8	20.166	35.422	.000
Within Groups	108.169	190	.569		
Total	269.497	198			

Post Hoc Tests Tekstur Ekstrudat

TEKSTUR

Duncan[a,b]

		Subset for alpha = .05				
SAMPEL2	N	1	2	3	4	5
sm	24	1.6250				
sp	23	1.8696				
bm	25		2.6000			
mp	25		3.0000	3.0000		
bms	25			3.3200	3.3200	
kh	17			3.4118	3.4118	
jg	25				3.6400	
mm	18					4.1667
khs	17					4.5882
Sig.		.288	.082	.091	.191	.067

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 21.513.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

LAMPIRAN 10c. Analisa Data SENSORIS Ekstrudat

ANOVA Rasa Ekstrudat

ANOVA

RASA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	146.271	8	18.284	30.921	.000
Within Groups	113.530	192	.591		
Total	259.801	200			

Post Hoc Tests Rasa EKstudat

RASA

Duncan[a,b]

SAMPEL3	N	Subset for alpha = .05			
		1	2	3	4
sm	22	1.6818			
mp	23	1.7391			
sp	25	1.9200	1.9200		
mm	16	2.0000	2.0000		
kh	22	2.0455	2.0455		
bm	22		2.4091		
bms	25			3.0800	
khs	25				3.7600
jg	21				4.0952
Sig.		.167	.053	1.000	.149

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 21.953.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

LAMPIRAN 10d. Analisa Data SENSORIS Ekstrudat

ANOVA Aroma Ekstrudat

ANOVA

AROMA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19.501	8	2.438	12.857	.000
Within Groups	33.558	177	.190		
Total	53.059	185			

POST HOC TEST Aroma Ekstrudat

AROMA

Duncan[a,b]

		Subset for alpha = .05			
SAMPEL4	N	1	2	3	4
kh	22	2.6818			
sm	24	2.9167	2.9167		
mp	19		3.0000		
mm	22		3.0000		
bm	18		3.0000		
bms	17		3.0000		
khs	18		3.0000		
sp	21			3.3810	
jg	25				3.8000
Sig.		.086	.605	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.327.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

LAMPIRAN 10e. Analisa Data SENSORIS Ekstrudat

ANOVA Penampilan Keseluruhan Ekstrudat

ANOVA

PENAMPIL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	90.638	8	11.330	28.400	.000
Within Groups	74.602	187	.399		
Total	165.240	195			

POST HOC TEST Penampilan Keseluruhan Ekstrudat

PENAMPIL

Duncan[a,b]

		Subset for alpha = .05			
SAMPEL5	N	1	2	3	4
sm	16	2.0000			
kh	16	2.0000			
sp	23		2.4348		
khs	24		2.5000		
bm	21		2.6190		
mp	22		2.7273		
mm	26		2.7308		
bms	25			3.2800	
jg	23				4.3913
Sig.		1.000	.179	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 21.169.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

LAMPIRAN 11. Formulir Uji Sensoris

LEMBAR KUISIONER

Nama :
Jenis Kelamin :
Umur :

Di hadapan anda tersedia 9 macam produk ekstrudat. Anda diminta untuk memberikan penilaian terhadap produk-produk tersebut. **Penilaian anda hanya berdasarkan uji kesukaan terhadap produk (satu-satu), dan bukan membandingkan antar produk.** Nilai yang dapat anda berikan berkisar antara 5 sampai 1, dengan kriteria sebagai berikut :

Nilai 5 : sangat disukai
Nilai 4 : suka
Nilai 3 : biasa
Niali 2 : tidak suka
Nilai 1 : sangat tidak suka

Dibawah ini adalah parameter penilaian yang harus anda berikan :

Kode Sampel	Warna	Tekstur	Rasa	Aroma	Penampilan Keseluruhan
531					
763					
284					
905					
158					
472					
385					
697					
106					

LAMPIRAN 12. Data Hasil Pengukuran Kimia Bahan Baku

No.	Sampel	Ulangan	KADAR (%)				
			AIR	PROTEIN	LEMAK	SERAT KASAR	AMILOSA
			WB	DB	DB	DB	
1	Jagung	1	10,15	9,63	6,74	2,13	13,83
2	Jagung	2	9,89	10,51	6,17	0,59	18,50
3	Jagung	3	9,81	8,58	7,38	1,31	19,74
4	Sorgum putih	1	10,94	9,11	7,07	2,50	16,63
5	Sorgum putih	2	12,00	10,16	7,07	2,59	15,49
6	Sorgum putih	3	11,86	11,56	6,06	1,52	16,63
7	Sorgum merah	1	10,89	10,33	8,73	3,44	16,94
8	Sorgum merah	2	11,57	9,98	7,98	3,24	18,50
9	Sorgum merah	3	11,80	8,93	7,33	2,21	19,43
10	Milet putih	1	10,58	11,56	7,67	5,89	27,10
11	Milet putih	2	10,49	10,86	7,34	5,09	28,24
12	Milet putih	3	10,59	12,08	7,24	4,76	29,48
13	Milet merah	1	11,59	13,83	7,36	7,64	6,99
14	Milet merah	2	11,64	14,53	7,26	8,88	6,99
15	Milet merah	3	11,93	13,83	7,47	9,68	6,89
16	Beras Merah	1	12,18	10,68	6,32	0,68	16,32
17	Beras Merah	2	11,94	13,31	7,95	0,35	17,88
18	Beras Merah	3	12,15	9,63	7,37	2,47	19,95
19	Beras Merah Sosoh	1	12,23	11,56	9,12	0,70	28,65
20	Beras Merah Sosoh	2	12,88	11,38	7,92	0,19	25,96
21	Beras Merah Sosoh	3	13,21	11,73	7,61	0,27	26,06
22	Ketan Hitam	1	11,13	11,21	7,03	1,69	2,85
23	Ketan Hitam	2	10,84	10,51	7,94	1,41	3,16
24	Ketan Hitam	3	11,03	9,46	6,16	1,72	3,78
25	Ketan Hitam Sosoh	1	11,24	10,68	3,79	0,34	24,72
26	Ketan Hitam Sosoh	2	11,21	11,21	4,34	1,83	26,06
27	Ketan Hitam Sosoh	3	11,04	10,33	4,15	0,00	22,95

LAMPIRAN 13a. Analisa Data Kimia Bahan Baku

UJI NORMALITAS PROTEIN
NPAR K-S TEST

One-Sample Kolmogorov-Smirnov Test

		PROTEIN
N		27
Normal Parameters [a,b]	Mean	11.0054
	Std. Deviation	1.5185
Most Extreme Differences	Absolute	.136
	Positive	.136
	Negative	-.083
Kolmogorov-Smirnov Z		.707
Asymp. Sig. (2-tailed)		.699

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

ANOVA

PROTEIN

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		43.744	8	5.468	6.072	.001
	Linear Term	Contrast	3.483	1	3.483	3.868	.065
		Deviation	40.261	7	5.752	6.387	.001
Within Groups			16.209	18	.900		
Total			59.953	26			

POST HOC TEST

PROTEIN

Duncan[a]

(1,00, jg), (2,00, sp) , (3,00, sm) , (4,00, mp)	N	Subset for alpha = .05		
		1	2	3
1.00	3	9.5721		
3.00	3	9.7472	9.7472	
2.00	3	10.2725	10.2725	
8.00	3	10.3893	10.3893	
9.00	3	10.7395	10.7395	
6.00	3	11.2064	11.2064	
4.00	3		11.4982	
7.00	3		11.5566	
5.00	3			14.0664
Sig.		.076	.053	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 13b. Analisa Data Kimia Bahan Baku

UJI NORMALITAS KADAR AIR_wb
NPAR K-S TEST

One-Sample Kolmogorov-Smirnov Test

		AIR_WB
N		27
Normal Parameters [a,b]	Mean	11.3637
	Std. Deviation	.8428
Most Extreme Differences	Absolute	.078
	Positive	.078
	Negative	-.078
Kolmogorov-Smirnov Z		.407
Asymp. Sig. (2-tailed)		.996

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

ANOVA

AIR_WB

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		16.619	8	2.077	20.222	.000
	Linear Term	Contrast	2.679	1	2.679	26.075	.000
		Deviation	13.941	7	1.992	19.385	.000
Within Groups			1.849	18	.103		
Total			18.469	26			

POST HOC TEST

AIR_WB

Duncan[a]

(1,00, jg), (2,00, sp), (3,00, sm), (4,00, mp)	N	Subset for alpha = .05					
		1	2	3	4	5	6
1.00	3	9.9474					
4.00	3		10.5527				
8.00	3		10.9996	10.9996			
9.00	3			11.1655	11.1655		
3.00	3			11.4213	11.4213		
2.00	3				11.5982	11.5982	
5.00	3				11.7234	11.7234	
6.00	3					12.0919	
7.00	3						12.7731
Sig.		1.000	.105	.144	.064	.090	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 13c. Analisa Data Kimia Bahan Baku

UJI NORMALITAS LEMAK
NPAR K-S TEST

One-Sample Kolmogorov-Smirnov Test

		LEMAK
N		27
Normal Parameters [a,b]	Mean	6.9846
	Std. Deviation	1.2589
Most Extreme Differences	Absolute	.218
	Positive	.141
	Negative	-.218
Kolmogorov-Smirnov Z		1.132
Asymp. Sig. (2-tailed)		.154

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

ANOVA

LEMAK

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		34.310	8	4.289	11.193	.000
	Linear Term	Contrast	4.561	1	4.561	11.904	.003
		Deviation	29.749	7	4.250	11.091	.000
Within Groups			6.897	18	.383		
Total			41.207	26			

POST HOC TEST

LEMAK

Duncan [a]

(1,00, jg), (2,00, sp), (3,00, sm), (4,00, mp)	N	Subset for alpha = .05		
		1	2	3
9.00	3	4.0941		
2.00	3		6.7358	
1.00	3		6.7631	
8.00	3		7.0434	7.0434
6.00	3		7.2104	7.2104
5.00	3		7.3642	7.3642
4.00	3		7.4164	7.4164
3.00	3			8.0149
7.00	3			8.2191
Sig.		1.000	.246	.052

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 13d. Analisa Data Kimia Bahan Baku

UJI NORMALITAS SERAT KASAR
NPAR K-S TEST

One-Sample Kolmogorov-Smirnov Test

		SERAT
N		27
Normal Parameters[a,b]	Mean	2.7080
	Std. Deviation	2.6579
Most Extreme Differences	Absolute	.221
	Positive	.221
	Negative	-.154
Kolmogorov-Smirnov Z		1.151
Asymp. Sig. (2-tailed)		.142

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

ANOVA

SERAT

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		173.389	8	21.674	37.939	.000
	Linear Term	Contrast	9.095	1	9.095	15.920	.001
		Deviation	164.295	7	23.471	41.084	.000
Within Groups			10.283	18	.571		
Total			183.672	26			

POST HOC TEST

SERAT

Duncan[a]

(1,00, jg), (2,00, sp), (3,00, sm), (4,00, mp)	N	Subset for alpha = .05				
		1	2	3	4	5
7.00	3	.3867				
9.00	3	.7240				
6.00	3	1.1673	1.1673			
1.00	3	1.3423	1.3423			
8.00	3	1.6093	1.6093	1.6093		
2.00	3		2.2023	2.2023		
3.00	3			2.9647		
4.00	3				5.2457	
5.00	3					8.7300
Sig.		.090	.140	.051	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 13e. Analisa Data Kimia Bahan Baku

UJI NORMALITAS AMILOSA
NPAR K-S TEST

		Amilosa
N		27
Normal Parameters[a,b]	Mean	17.7674
	Std. Deviation	8.2111
Most Extreme Differences	Absolute	.134
	Positive	.128
	Negative	-.134
Kolmogorov-Smirnov Z		.695
Asymp. Sig. (2-tailed)		.720

a. Test distribution is Normal.
b. Calculated from data.

ANOVA

Anova

			Sum of Squares	df	Mean Square	F	Sig.
Amilosa	Between Groups	(Combined)	710.080	8	213.760	89.697	.000
		Linear Terr Contrast	.482	1	.482	.202	.658
		Deviation	709.598	7	244.228	102.482	.000
	Within Groups		42.897	18	2.383		
	Total		752.977	26			

POST HOC TEST AMILOSA

AMILOSA

Duncan[a]

SAMPEL	N	Subset for alpha = .05				
		1	2	3	4	5
kh	3	3.2633				
mm	3		6.9567			
sp	3			16.2500		
jg	3			17.3567		
bm	3			18.0500		
sm	3			18.2900		
khs	3				24.5767	
bms	3				26.8900	26.8900
mp	3					28.2733
Sig.		1.000	1.000	.154	.083	.287

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

LAMPIRAN 14a. Analisa Regresi Kurva Standar Amilosa

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
ABSORBAN	.23580	.13146	5
AMILOSA	12.9000	6.7989	5

Correlations

		ABSORBAN	AMILOSA
Pearson Correlation	ABSORBAN	1.000	.999
	AMILOSA	.999	1.000
Sig. (1-tailed)	ABSORBAN	.	.000
	AMILOSA	.000	.
N	ABSORBAN	5	5
	AMILOSA	5	5

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	AMILOSA[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: ABSORBAN

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.999[a]	.999	.999	4.9227E-03	1.404

a. Predictors: (Constant), AMILOSA

b. Dependent Variable: ABSORBAN

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.906E-02	1	6.906E-02	2849.633	.000[a]
	Residual	7.270E-05	3	2.423E-05		
	Total	6.913E-02	4			

a. Predictors: (Constant), AMILOSA

b. Dependent Variable: ABSORBAN

LAMPIRAN 14b. Analisa Regresi Kurva Standar Amilosa

Coefficients

Mode		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	350E-02	.005		-2.615	.079	-.030	.003		
	AMILOSA	933E-02	.000	.999	53.382	.000	.018	.020	.000	1.000

a. Dependent Variable: ABSORBAN

Coefficient Correlations[a]

Model			AMILOSA
1	Correlations	AMILOSA	1.000
	Covariances	AMILOSA	1.311E-07

a. Dependent Variable: ABSORBAN

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	AMILOSA
1	1	1.905	1.000	.05	.05
	2	9.547E-02	4.467	.95	.95

a. Dependent Variable: ABSORBAN

Residuals Statistics [a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	6.96E-02	.40200	.23580	.13139	5
Std. Predicted Value	-1.265	1.265	.000	1.000	5
Standard Error of Predicted Value	2.20E-03	3.81E-03	3.04E-03	7.3053E-04	5
Adjusted Predicted Value	6.30E-02	.39600	.23379	.13159	5
Residual	-5.8E-03	4.40E-03	6.66E-17	4.2632E-03	5
Std. Residual	-1.178	.894	.000	.866	5
Stud. Residual	-1.317	1.413	.150	1.171	5
Deleted Residual	-7.2E-03	1.10E-02	2.01E-03	8.0773E-03	5
Stud. Deleted Residual	-1.656	1.996	.275	1.496	5
Mahal. Distance	.000	1.600	.800	.748	5
Cook's Distance	.010	1.498	.600	.712	5
Centered Leverage Value	.000	.400	.200	.187	5

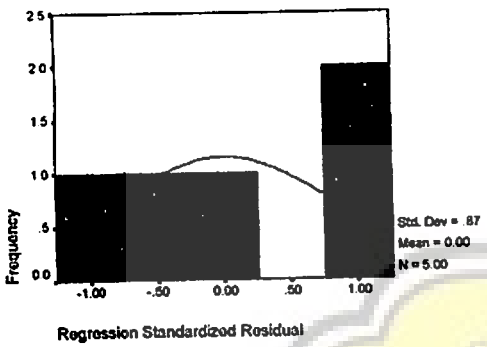
a. Dependent Variable: ABSORBAN

LAMPIRAN 14c. Analisa Regresi Kurva Standar Amilosa

Charts

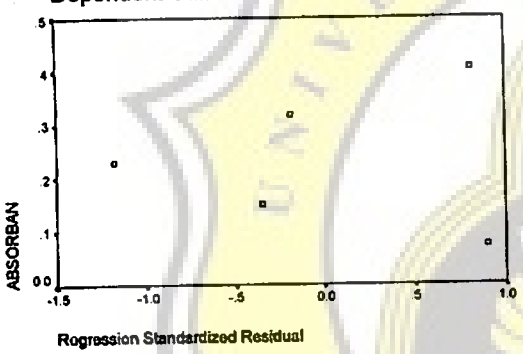
Histogram

Dependent Variable: ABSORBAN



Scatterplot

Dependent Variable: ABSORBAN



LAMPIRAN 15. Analisa Korelasi Komposisi Kimia dengan Sifat Fisik Ekstrudat

Correlations

		BD	AXIAL	RADIAL	ER	BSTRENGT	AMILOSA	AMILOPEK	LEMAK	PROTEIN	SERAT
BD	Pearson Correlation	1.000	-.380**	-.244**	-.244**	.399*	-.161	.161	-.521**	-.091	-.371
	Sig. (2-tailed)	.	.000	.001	.001	.039	.421	.421	.005	.651	.057
	N	180	180	180	180	27	27	27	27	27	27
AXIAL	Pearson Correlation	-.380**	1.000	-.565**	-.565**	-.088	.288	-.288	-.067	.052	.241
	Sig. (2-tailed)	.000	.	.000	.000	.663	.145	.145	.739	.797	.225
	N	180	900	900	900	27	27	27	27	27	27
RADIAL	Pearson Correlation	-.244**	-.565**	1.000	1.000**	-.335	.159	-.159	.214	-.033	.018
	Sig. (2-tailed)	.001	.000	.	.000	.087	.427	.427	.284	.871	.927
	N	180	900	900	900	27	27	27	27	27	27
ER	Pearson Correlation	-.244**	-.565**	1.000**	1.000	-.335	.161	-.161	.214	-.031	.019
	Sig. (2-tailed)	.001	.000	.000	.	.087	.423	.423	.285	.878	.925
	N	180	900	900	900	27	27	27	27	27	27
BSTRENGT	Pearson Correlation	.399*	-.088	-.335	-.335	1.000	.331	-.331	-.325	-.040	-.359
	Sig. (2-tailed)	.039	.663	.087	.087	.	.091	.091	.098	.842	.066
	N	27	27	27	27	27	27	27	27	27	27
AMILOSA	Pearson Correlation	-.161	.288	.159	.161	.331	1.000	-1.00**	-.079	-.149	-.297
	Sig. (2-tailed)	.421	.145	.427	.423	.091	.	.000	.694	.458	.133
	N	27	27	27	27	27	27	27	27	27	27
AMILOPEK	Pearson Correlation	.161	-.288	-.159	-.161	-.331	-1.00**	1.000	.079	.149	.297
	Sig. (2-tailed)	.421	.145	.427	.423	.091	.000	.	.694	.458	.133
	N	27	27	27	27	27	27	27	27	27	27
LEMAK	Pearson Correlation	-.521**	-.067	.214	.214	-.325	-.079	.079	1.000	.146	.258
	Sig. (2-tailed)	.005	.739	.284	.285	.098	.694	.694	.	.468	.195
	N	27	27	27	27	27	27	27	27	27	27
PROTEIN	Pearson Correlation	-.091	.052	-.033	-.031	-.040	-.149	.149	.146	1.000	.574**
	Sig. (2-tailed)	.651	.797	.871	.878	.842	.458	.458	.468	.	.002
	N	27	27	27	27	27	27	27	27	27	27
SERAT	Pearson Correlation	-.371	.241	.018	.019	-.359	-.297	.297	.258	.574**	1.000
	Sig. (2-tailed)	.057	.225	.927	.925	.066	.133	.133	.195	.002	.
	N	27	27	27	27	27	27	27	27	27	27

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

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