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APPENDIX

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

Appendix

A1. Formular for sample blend films

Sample No.	
1	LDPE + 5%starch
2	LDPE + 10%starch
3	LDPE + 15%starch
4	LDPE + 20%starch
5	LDPE + 5%starch + 10%PE-g-MA
6	LDPE + 10%starch + 10%PE-g-MA
7	LDPE + 15%starch + 10%PE-g-MA
8	LDPE + 20%starch + 10%PE-g-MA
9	LDPE + 5%starch + 10%PE-g-MA + 0.25%benzophenone
10	LDPE + 10%starch + 10%PE-g-MA + 0.25%benzophenone
11	LDPE + 15%starch + 10%PE-g-MA + 0.25%benzophenone
12	LDPE + 20%starch + 10%PE-g-MA + 0.25%benzophenone
13	LDPE + 5%starch + 10%PE-g-MA + 0.5%benzophenone
14	LDPE + 10%starch + 10%PE-g-MA + 0.5%benzophenone
15	LDPE + 15%starch + 10%PE-g-MA + 0.5%benzophenone
16	LDPE + 20%starch + 10%PE-g-MA + 0.5%benzophenone
17	LDPE + 5%starch + 10%PE-g-MA + 1%benzophenone
18	LDPE + 10%starch + 10%PE-g-MA + 1%benzophenone
19	LDPE + 15%starch + 10%PE-g-MA + 1%benzophenone
20	LDPE + 20%starch + 10%PE-g-MA + 1%benzophenone
21	LDPE + 1%benzophenone
22	LDPE + 1%ZnO

A2. Data for Tensile strength of The Blend Films

Sample No.	Tensile Strength (MPa) of The Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	14.08	14.39	13.88	15.09	14.12	14.31	0.47
2	13.02	12.56	13.57	12.66	13.65	13.09	0.50
3	11.02	12.88	13.05	12.48	12.35	12.36	0.80
4	11.47	10.90	12.21	12.29	12.48	11.87	0.66
5	16.57	18.40	15.00	15.09	15.14	16.04	1.47
6	14.12	13.40	14.07	13.80	15.93	14.26	0.97
7	13.08	13.02	13.14	13.61	13.57	13.28	0.28
8	12.61	12.90	12.62	12.98	12.72	12.77	0.17
9	15.36	15.38	15.29	16.14	15.81	15.60	0.37
10	14.34	14.34	14.69	13.81	13.84	14.20	0.37
11	13.02	12.39	13.68	13.98	13.35	13.28	0.62
12	12.88	11.98	12.39	13.5	11.72	12.49	0.71
13	14.62	16.78	16.05	15.84	14.88	15.63	0.88
14	14.78	14.61	14.57	14.84	14.17	14.59	0.26
15	12.71	13.74	13.62	14.20	12.19	13.29	0.82
16	12.94	12.70	11.70	13.01	11.48	12.37	0.72
17	15.65	14.97	16.27	16.49	16.34	15.94	0.63
18	14.43	14.28	14.21	14.37	14.24	14.31	0.09
19	14.23	13.53	13.71	13.71	13.51	13.74	0.29
20	12.87	12.24	12.06	12.52	12.83	12.50	0.36
21	16.77	15.60	16.62	17.21	17.40	16.72	0.70
22	19.30	18.78	19.05	18.84	19.06	19.01	0.21
LDPE	17.62	18.10	16.65	16.32	16.93	17.12	0.73

A3. Data for Elongation at Break of The Blend Films

Sample No.	Elongation at break (%) of The Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	127.38	121.12	121.00	127.16	124.56	124.24	3.11
2	117.41	118.85	119.00	123.97	120.95	120.04	2.53
3	102.39	108.19	115.79	111.42	105.81	108.72	5.15
4	104.10	100.84	108.24	113.67	111.42	107.65	5.24
5	117.70	118.70	130.36	127.16	132.66	125.32	6.79
6	124.56	117.27	108.52	125.19	129.01	120.91	8.12
7	122.00	117.01	131.31	96.19	97.04	112.71	15.57
8	92.07	102.36	93.69	130.37	131.69	110.04	19.57
9	130.62	132.52	123.01	125.65	127.83	127.93	3.80
10	131.18	130.47	127.08	116.36	114.07	123.83	8.06
11	118.34	109.67	112.38	112.64	124.14	115.43	5.80
12	118.21	109.10	110.75	117.76	111.81	113.53	4.19
13	131.15	128.08	123.57	129.32	129.41	128.31	2.86
14	125.65	123.02	130.01	122.55	123.71	124.99	3.05
15	122.14	122.68	118.91	109.26	119.54	118.51	5.42
16	118.16	115.64	118.74	119.13	113.87	117.11	2.26
17	119.10	129.23	134.55	122.88	126.86	126.52	5.92
18	123.46	128.09	119.62	123.48	117.76	122.48	4.00
19	107.59	117.17	118.26	107.87	117.06	113.59	5.37
20	100.72	125.08	109.08	107.74	115.14	111.55	9.14
21	205.67	200.67	193.59	221.11	210.15	206.24	10.34
22	282.67	271.73	289.94	262.02	265.59	274.39	11.70
LDPE	241.13	251.31	215.66	256.46	266.74	246.26	19.44

A4. Data for Tensile Strength of the Blend Films After Outdoor for 1 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	13.65	13.14	13.88	13.52	13.98	13.63	0.33
2	12.79	12.36	12.74	12.60	13.14	12.73	0.29
3	10.98	12.35	10.67	11.83	10.51	11.27	0.79
4	10.51	10.12	10.34	10.19	10.23	10.28	0.15
5	15.83	15.75	15.74	14.80	14.12	15.25	0.76
6	13.29	13.19	13.02	13.14	13.36	13.20	0.13
7	12.31	12.56	11.76	10.58	11.46	11.73	0.78
8	11.41	11.47	11.2	11.02	10.90	11.20	0.24
9	11.98	12.00	12.43	11.51	11.61	11.91	0.37
10	11.73	11.25	11.06	10.93	11.37	11.27	0.31
11	10.51	10.93	10.88	10.34	9.51	10.43	0.57
12	9.90	11.23	10.26	11.12	9.34	10.37	0.81
13	9.28	9.97	10.11	9.71	9.49	9.71	0.34
14	9.03	9.06	9.39	9.20	9.42	9.22	0.18
15	8.83	8.51	8.66	8.25	9.03	8.66	0.30
16	8.57	8.21	8.62	8.43	8.77	8.52	0.21
17	9.39	9.63	9.40	9.28	9.51	9.44	0.13
18	8.88	9.28	9.29	9.22	9.03	9.14	0.18
19	8.17	9.23	8.86	8.72	8.68	8.73	0.38
20	8.57	8.21	8.62	8.43	8.77	8.52	0.21
21	14.50	14.36	13.32	14.02	13.87	14.01	0.46
22	15.78	14.98	16.72	16.07	17.02	16.11	0.80
LDPE	15.59	14.98	14.62	14.76	16.27	15.24	0.68

A5. Data for Elongation at Break of the Blend Films After Outdoor Exposure for 1 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	120.95	123.98	120.88	114.86	112.77	118.69	4.68
2	115.46	118.74	118.48	113.40	115.74	116.36	2.24
3	107.79	105.81	106.18	112.31	99.47	106.31	4.62
4	100.20	93.74	87.53	84.17	79.61	89.05	8.09
5	126.66	121.94	117.64	115.68	124.56	121.30	4.60
6	113.84	118.84	117.41	115.96	120.91	117.39	2.70
7	114.99	118.85	110.59	91.83	119.00	111.05	11.28
8	103.24	104.10	111.18	102.39	100.84	104.35	4.00
9	91.05	95.55	87.35	87.02	90.11	90.22	3.45
10	85.91	79.52	85.74	88.67	81.17	84.20	3.75
11	80.90	87.96	81.63	75.33	78.46	80.86	4.67
12	66.94	71.51	76.62	72.56	66.19	70.76	4.29
13	87.92	92.82	83.92	83.42	83.11	86.24	4.16
14	69.75	66.65	72.86	62.82	67.47	67.91	3.73
15	67.28	65.62	65.74	62.09	69.75	66.10	2.79
16	62.28	62.70	65.06	61.96	62.29	62.86	1.26
17	77.06	77.24	81.86	75.05	85.57	79.36	4.28
18	74.87	75.40	70.48	88.68	79.09	77.70	6.85
19	67.84	68.94	69.66	62.51	59.92	65.77	4.31
20	62.28	62.70	65.06	61.96	62.29	62.86	1.26
21	170.27	180.44	175.38	160.65	180.22	173.39	8.25
22	245.26	271.46	257.92	270.41	227.17	254.44	18.61
LDPE	199.51	192.56	174.46	180.71	176.51	184.75	10.83

A6. Data for Tensile Strength of the Blend Films After Outdoor Exposure for 2 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	10.31	11.02	10.41	10.88	10.59	10.64	0.30
2	10.59	9.83	10.90	9.84	10.24	10.28	0.47
3	8.60	8.44	8.46	8.61	8.58	8.54	0.08
4	7.89	8.30	8.29	8.36	8.07	8.18	0.20
5	13.2	13.21	12.63	12.41	12.71	12.83	0.36
6	11.8	11.80	11.96	11.74	12.91	12.04	0.49
7	9.77	9.15	8.39	9.81	9.38	9.30	0.58
8	9.13	9.15	8.86	9.13	8.60	8.97	0.24
9	9.56	8.81	10.32	9.61	9.32	9.52	0.55
10	8.39	9.10	8.53	8.83	8.89	8.75	0.29
11	8.74	8.50	8.35	8.78	8.39	8.55	0.20
12	8.50	8.58	8.62	8.68	8.56	8.59	0.07
13	8.18	8.34	8.29	8.25	8.60	8.33	0.16
14	8.87	8.55	8.91	8.56	8.61	8.70	0.18
15	8.38	8.49	8.64	8.49	8.53	8.51	0.09
16	8.69	8.61	8.71	8.40	8.29	8.54	0.19
17	8.09	7.98	7.77	8.38	8.02	8.05	0.22
18	7.47	7.83	8.13	8.12	7.54	7.82	0.31
19	7.58	7.65	7.89	7.80	8.08	7.80	0.20
20	8.32	7.26	7.58	7.45	7.81	7.68	0.41
21	10.75	10.85	11.78	11.25	12.20	11.37	0.62
22	13.42	14.66	14.31	16.16	15.64	14.84	1.09
LDPE	11.76	11.15	13.26	13.07	12.94	12.44	0.93

A7. Data for Elongation at Break of the Blend Films After Outdoor Exposure for 2 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	110.25	114.20	104.32	114.51	108.90	110.44	4.20
2	101.36	90.90	106.09	99.53	93.74	98.32	6.06
3	83.22	77.76	80.54	78.46	80.09	80.01	2.12
4	69.51	81.84	73.34	75.31	92.29	78.46	8.93
5	116.17	111.46	111.45	121.16	113.17	114.68	4.10
6	110.92	111.18	110.63	105.37	103.61	108.34	3.58
7	92.69	98.49	95.98	109.16	103.49	99.96	6.48
8	84.14	80.78	80.52	88.57	89.94	84.79	4.35
9	78.52	77.44	84.52	83.49	79.32	80.66	3.15
10	70.58	87.54	87.86	77.12	86.92	82.00	7.80
11	68.78	70.56	73.48	70.38	81.61	72.96	5.12
12	71.53	73.17	73.87	68.76	68.72	71.21	2.41
13	64.43	71.10	74.26	60.56	76.35	69.34	6.66
14	67.49	65.17	69.02	65.98	61.61	65.85	2.79
15	56.68	56.95	61.38	55.34	59.42	57.95	2.42
16	49.82	56.00	56.50	52.53	55.70	54.11	2.86
17	45.98	55.45	48.52	49.08	51.06	50.02	3.54
18	42.44	45.62	56.35	55.78	46.93	49.42	6.28
19	52.08	46.42	46.86	44.72	51.35	48.29	3.24
20	49.07	42.56	42.57	43.91	50.08	45.64	3.65
21	139.28	144.68	148.65	166.97	165.74	153.06	12.59
22	223.35	214.79	223.66	222.72	248.09	226.52	12.60
LDPE	158.87	173.70	173.91	118.24	157.41	156.43	22.74

A8. Data for Tensile Strength of the Blend Films After Outdoor Exposure for 3 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	9.55	8.88	8.77	9.62	8.86	9.14	0.41
2	8.42	8.67	8.61	8.30	8.20	8.44	0.20
3	7.78	7.65	7.91	7.69	7.44	7.69	0.17
4	6.59	7.18	7.09	6.99	7.21	7.01	0.25
5	10.76	10.07	9.11	9.15	10.51	9.92	0.76
6	8.93	9.03	9.30	9.56	9.39	9.24	0.26
7	8.27	7.73	8.40	8.47	8.23	8.22	0.29
8	8.08	7.87	8.19	7.44	7.19	7.75	0.43
9	8.63	8.14	8.56	8.98	8.43	8.55	0.31
10	7.70	8.80	8.21	8.12	7.28	8.02	0.57
11	8.12	8.15	7.54	7.47	8.05	7.87	0.33
12	8.06	8.52	7.67	7.50	7.67	7.88	0.41
13	7.52	6.81	6.91	7.72	6.91	7.17	0.42
14	7.41	7.34	7.64	7.38	7.80	7.51	0.20
15	7.11	7.59	7.06	6.61	6.84	7.04	0.36
16	6.88	6.81	6.79	6.76	6.54	6.76	0.13
17	7.23	7.34	7.30	8.23	7.70	7.56	0.42
18	7.56	7.31	6.78	6.97	7.76	7.28	0.40
19	7.39	7.72	7.29	7.55	7.84	7.56	0.23
20	6.72	6.26	5.35	7.46	6.84	6.53	0.78
21	8.82	8.66	9.80	10.12	8.83	9.25	0.66
22	10.74	10.94	11.24	11.21	10.92	11.01	0.21
LDPE	9.77	9.65	9.58	10.16	8.98	9.63	0.43

A9. Data for Elongation at Break of the Blend Films After Outdoor Exposure for 3 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	101.13	105.01	91.24	93.81	116.12	101.46	9.88
2	82.59	87.98	85.74	85.86	73.09	83.05	5.89
3	60.05	53.90	59.51	61.24	58.51	58.64	2.83
4	43.53	54.31	56.43	54.77	46.53	51.11	5.71
5	99.41	100.45	111.16	113.82	101.39	105.25	6.72
6	96.64	96.04	89.89	95.24	97.12	94.99	2.93
7	80.32	58.70	57.56	69.79	76.41	68.56	10.24
8	67.50	54.02	55.51	62.11	60.56	59.94	5.41
9	62.97	47.15	49.99	66.09	67.78	58.80	9.55
10	48.25	56.31	47.94	49.71	50.66	50.57	3.39
11	48.22	39.41	43.8	47.14	33.06	42.33	6.21
12	40.4	45.88	43.24	40.34	37.69	41.51	3.13
13	57.45	42.10	44.33	51.12	47.01	48.40	6.07
14	30.11	25.82	42.21	39.06	33.03	34.05	6.63
15	30.78	32.18	20.94	26.55	29.48	27.99	4.45
16	22.46	24.22	33.40	28.52	25.25	26.77	4.31
17	22.15	24.99	25.25	28.32	28.06	25.75	2.54
18	26.96	20.69	21.23	23.17	24.03	23.22	2.50
19	17.55	21.22	18.39	17.66	21.21	19.21	1.86
20	13.00	14.44	15.97	15.31	16.34	15.01	1.34
21	134.76	126.16	144.81	102.53	112.57	124.17	16.92
22	171.93	158.16	176.65	165.39	159.09	166.24	8.03
LDPE	132.21	149.93	127.15	120.47	152.87	136.53	14.24

A10. Data for Tensile Strength of the Blend Films After Outdoor Exposure for 4 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	6.77	7.63	6.87	7.90	8.12	7.46	0.61
2	6.87	6.54	6.92	7.19	7.53	7.01	0.37
3	6.87	6.93	6.37	6.56	6.87	6.72	0.24
4	6.72	6.19	6.86	6.48	5.51	6.35	0.54
5	8.46	8.23	7.68	8.55	8.30	8.24	0.34
6	7.65	7.91	7.80	7.65	7.28	7.66	0.24
7	6.87	6.99	6.95	7.77	7.63	7.24	0.42
8	7.36	7.50	6.25	6.80	6.81	6.94	0.50
9	7.89	8.04	8.57	8.11	8.21	8.16	0.26
10	7.18	7.39	7.16	7.12	7.20	7.21	0.10
11	7.46	7.19	7.54	7.49	6.28	7.19	0.53
12	7.25	6.34	7.02	7.20	6.55	6.87	0.41
13	6.67	7.31	7.68	7.62	7.55	7.37	0.41
14	7.07	6.75	7.30	8.18	7.47	7.35	0.53
15	7.02	6.94	6.74	6.75	7.04	6.90	0.14
16	6.98	7.87	6.81	5.57	7.07	6.86	0.83
17	5.67	6.17	5.62	5.33	5.32	5.62	0.35
18	5.44	5.59	5.23	5.09	5.43	5.36	0.20
19	4.33	6.46	6.94	5.22	4.68	5.53	1.13
20	4.36	2.67	3.42	4.51	4.45	3.88	0.81
21	8.92	8.56	7.93	8.82	8.86	8.62	0.41
22	9.46	9.78	9.74	10.28	10.73	10.00	0.50
LDPE	9.21	8.93	8.79	9.43	8.07	8.89	0.52

A11. Data for Elongation at Break of the Blend Films After Outdoor Exposure for 4 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	38.39	57.81	42.72	43.37	38.01	44.06	8.06
2	26.08	34.41	29.85	30.63	35.81	31.36	3.87
3	12.90	12.93	8.83	13.56	14.19	12.48	2.11
4	9.18	7.59	9.74	7.95	8.95	8.68	0.89
5	68.38	56.74	47.26	52.76	64.31	57.89	8.54
6	30.59	58.74	47.64	53.90	49.37	48.05	10.67
7	23.79	24.81	29.42	29.51	34.45	28.40	4.27
8	12.62	9.04	23.21	13.09	15.89	14.77	5.31
9	22.80	24.49	22.29	24.31	23.86	23.55	0.96
10	30.16	21.12	22.01	20.11	22.19	23.12	4.02
11	32.40	29.17	28.28	31.39	24.45	29.14	3.10
12	27.07	3.26	26.39	22.19	27.27	21.24	10.26
13	16.51	15.69	14.96	15.26	12.88	15.06	1.35
14	9.41	10.38	10.10	11.86	9.74	10.30	0.95
15	11.99	10.22	8.24	9.26	9.01	9.74	1.44
16	7.45	7.51	10.42	7.59	9.41	8.48	1.36
17	7.63	8.82	6.31	6.24	8.11	7.42	1.13
18	5.21	5.45	7.31	4.74	6.08	5.76	0.99
19	3.04	6.49	8.12	5.84	4.16	5.53	1.99
20	2.30	3.53	1.67	2.59	2.70	2.56	0.67
21	60.97	92.86	63.78	94.41	62.88	74.98	17.07
22	110.25	129.66	120.47	112.62	127.83	120.17	8.72
LDPE	98.24	97.82	101.47	98.5	79.19	95.04	8.98

A12. Data for Tensile Strength of the Blend Films After Accelerated Exposure for 5 hours

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	14.16	14.74	14.13	15.85	15.80	14.94	0.85
2	13.65	13.09	12.99	13.61	13.48	13.36	0.30
3	11.67	11.63	11.92	11.57	12.57	11.87	0.41
4	11.38	11.05	11.27	11.94	12.65	11.66	0.64
5	14.57	15.05	15.64	15.28	15.25	15.16	0.39
6	13.34	14.35	13.74	13.92	13.27	13.72	0.44
7	12.87	13.03	11.98	12.19	12.08	12.43	0.48
8	12.33	12.84	12.01	12.52	12.07	12.35	0.34
9	16.16	16.44	17.52	16.46	15.17	16.35	0.84
10	15.36	14.64	15.01	15.02	14.69	14.94	0.29
11	14.46	14.45	14.06	13.98	13.82	14.15	0.29
12	14.32	13.91	14.54	13.87	14.01	14.13	0.29
13	14.05	14.32	14.27	13.80	13.54	14.00	0.33
14	13.13	12.58	13.58	13.12	12.73	13.03	0.39
15	13.09	13.23	13.25	12.65	12.82	13.01	0.26
16	13.18	12.87	13.02	12.17	13.21	12.89	0.42
17	12.17	12.92	12.61	12.37	12.67	12.55	0.29
18	12.16	12.79	11.30	12.28	12.16	12.14	0.54
19	12.01	12.22	12.36	11.99	11.66	12.05	0.27
20	11.89	11.70	12.21	12.02	11.53	11.87	0.27
21	16.27	16.34	15.99	17.32	16.61	16.51	0.51
22	18.49	18.19	19.68	18.03	19.95	18.87	0.89
LDPE	16.75	17.27	15.27	16.89	16.52	16.54	0.76

A13. Data for Elongation at Break of the Blend Films After Accelerated Exposure for 5 hours

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	116.36	110.44	104.24	120.49	120.59	114.42	7.04
2	108.15	109.25	116.39	110.48	118.10	112.47	4.47
3	106.67	107.92	108.42	115.34	120.79	111.83	6.04
4	92.86	97.94	96.72	98.76	93.12	95.88	2.74
5	141.42	151.50	140.76	141.00	132.21	141.38	6.84
6	112.48	131.01	111.25	135.48	119.02	121.85	10.93
7	105.02	126.09	109.24	113.24	112.17	113.15	7.90
8	97.48	100.93	90.37	96.76	109.53	99.01	7.01
9	111.15	111.36	109.3	108.27	110.71	110.16	1.33
10	115.46	102.30	109.04	101.68	108.31	107.36	5.64
11	92.96	98.36	104.07	94.87	101.30	98.31	4.54
12	95.60	95.91	94.42	87.49	90.82	92.85	3.61
13	95.12	92.06	92.68	87.76	75.72	88.67	7.71
14	79.13	97.01	81.89	89.28	89.99	87.46	7.09
15	85.74	85.12	83.00	88.37	84.82	85.41	1.94
16	76.44	85.71	83.27	85.50	81.12	82.41	3.82
17	82.30	86.01	76.06	82.53	76.64	80.71	4.25
18	76.59	79.15	80.05	78.13	70.58	76.90	3.76
19	78.96	71.88	69.49	72.31	77.73	74.07	4.07
20	67.06	67.01	69.27	64.32	61.09	65.75	3.14
21	112.77	127.46	123.57	118.89	115.09	119.56	6.02
22	209.58	217.41	182.10	208.94	226.05	208.82	16.47
LDPE	179.01	164.5	176.03	166.08	182.42	173.61	7.94

A14. Data for Tensile Strength of the Blend Films After Accelerated Exposure for 10 hours

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	15.90	15.39	15.27	15.89	13.56	15.20	0.96
2	14.19	13.73	12.91	13.86	13.99	13.74	0.49
3	12.50	12.78	12.00	12.46	11.82	12.31	0.39
4	11.28	12.00	12.03	11.80	12.59	11.94	0.47
5	15.22	15.19	16.60	15.60	16.08	15.74	0.60
6	13.66	14.11	14.05	14.60	14.32	14.15	0.35
7	12.47	12.57	13.69	12.47	12.45	12.73	0.54
8	13.79	11.64	13.56	11.67	12.57	12.65	1.01
9	15.12	14.91	15.07	14.39	13.03	14.50	0.87
10	13.02	14.40	12.58	13.42	14.11	13.51	0.75
11	14.10	13.80	12.93	13.03	13.12	13.40	0.52
12	12.48	14.51	13.32	12.86	13.56	13.35	0.77
13	12.19	12.15	11.83	11.95	12.24	12.07	0.17
14	12.94	13.13	12.89	13.34	12.95	13.05	0.19
15	12.61	13.33	12.93	12.80	13.09	12.95	0.27
16	12.48	13.14	13.35	12.12	12.87	12.79	0.50
17	12.35	12.28	11.87	12.27	11.92	12.14	0.22
18	12.19	12.15	11.83	11.95	12.24	12.07	0.17
19	12.03	12.52	11.50	11.83	12.25	12.03	0.39
20	11.92	11.20	11.56	11.92	11.75	11.67	0.30
21	16.89	15.39	16.50	15.88	16.56	16.24	0.60
22	17.13	17.44	17.03	16.43	16.89	16.98	0.37
LDPE	16.87	16.88	15.37	17.76	15.11	16.40	1.12

A15. Data for Elongation at Break of the Blend Films After Accelerated Exposure for 10 hours

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	130.71	104.36	114.97	127.39	109.72	117.43	11.31
2	104.51	121.16	111.36	113.70	116.39	113.42	6.17
3	100.81	115.49	117.56	105.36	114.94	110.83	7.32
4	107.15	107.66	109.01	105.11	110.94	107.97	2.17
5	131.09	138.73	140.94	142.18	152.78	141.14	7.80
6	117.43	122.91	121.64	118.28	124.63	120.98	3.06
7	122.41	122.07	111.58	121.76	115.49	118.66	4.89
8	102.00	109.51	116.39	108.15	118.10	110.83	6.53
9	120.27	109.87	128.04	110.20	104.02	114.48	9.57
10	110.55	119.29	107.24	102.47	112.68	110.45	6.27
11	111.83	117.31	104.72	109.56	108.7	110.42	4.63
12	105.84	105.26	92.96	100.11	97.32	100.30	5.43
13	89.26	102.96	98.16	91.77	96.79	95.79	5.40
14	86.81	89.46	95.37	90.56	81.47	88.73	5.11
15	86.26	87.46	85.49	98.78	83.57	88.31	6.02
16	82.26	72.72	78.15	86.62	82.56	80.46	5.26
17	86.28	75.90	83.13	79.04	77.47	80.36	4.26
18	79.86	80.21	79.17	76.85	77.96	78.81	1.39
19	79.47	75.70	76.38	81.03	70.96	76.71	3.89
20	70.32	76.88	72.82	75.50	77.97	74.70	3.11
21	161.57	157.95	177.51	159.94	173.16	166.03	8.73
22	235.61	244.66	215.86	254.61	204.36	231.02	20.64
LDPE	211.81	223.25	210.70	219.04	220.32	217.02	5.50

A16. Data for Tensile Strength of the Blend Films After Accelerated Exposure for 15 hours

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	16.04	16.48	16.43	16.14	15.10	16.04	0.56
2	13.35	13.27	14.23	13.16	13.42	13.49	0.43
3	12.35	12.48	13.16	12.47	12.60	12.61	0.32
4	11.66	12.55	12.26	11.19	11.64	11.86	0.54
5	17.31	17.49	16.61	17.46	17.17	17.21	0.36
6	16.15	16.39	15.55	15.24	16.25	15.92	0.50
7	12.73	12.74	13.59	13.21	12.90	13.03	0.37
8	11.91	11.82	11.77	12.09	11.88	11.89	0.12
9	14.84	16.30	16.64	15.15	15.73	15.73	0.76
10	14.03	13.99	14.18	15.55	13.73	14.30	0.72
11	13.80	14.68	14.00	13.59	14.42	14.10	0.45
12	13.41	14.87	12.95	13.40	13.41	13.61	0.73
13	13.30	13.16	13.12	13.32	12.74	13.13	0.23
14	13.82	11.85	13.27	12.91	12.16	12.80	0.80
15	13.26	12.97	12.16	12.49	12.94	12.76	0.44
16	12.81	12.60	12.45	12.86	12.03	12.55	0.33
17	12.55	12.29	12.74	12.95	11.99	12.50	0.38
18	12.51	12.37	11.88	11.54	11.86	12.03	0.40
19	11.80	11.68	11.05	11.74	11.21	11.50	0.34
20	11.28	10.96	11.46	11.40	12.12	11.44	0.42
21	15.75	15.92	16.01	16.12	16.17	15.99	0.17
22	17.59	17.21	16.74	16.48	15.95	16.79	0.64
LDPE	16.11	16.34	16.49	15.97	16.13	16.21	0.21

A17. Data for Elongation at Break of the Blend Films After Accelerated Exposure for 15 hours

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	116.02	114.32	116.01	126.86	116.67	117.98	5.04
2	118.31	111.96	120.62	116.81	118.84	117.31	3.29
3	105.41	105.91	105.5	106.46	105.49	105.75	0.44
4	88.28	94.25	98.05	89.89	98.46	93.79	4.63
5	118.64	120.46	114.17	122.21	117.55	118.61	3.05
6	122.63	119.90	111.12	123.88	110.47	117.60	6.38
7	118.46	111.31	116.47	110.76	117.02	114.80	3.52
8	105.04	117.66	114.02	88.09	102.51	105.46	11.54
9	111.89	126.44	125.22	137.01	118.05	123.72	9.47
10	115.35	110.47	113.17	111.41	109.50	111.98	2.32
11	108.42	110.16	104.99	108.14	107.81	107.90	1.86
12	116.43	103.87	102.03	100.67	111.42	106.88	6.76
13	103.68	106.60	108.05	109.83	110.64	107.76	2.77
14	86.69	84.11	90.48	98.44	100.82	92.11	7.28
15	88.18	93.71	91.37	89.56	89.02	90.37	2.20
16	82.53	86.10	95.95	89.03	89.88	88.70	4.97
17	90.03	73.70	83.23	85.29	85.77	83.60	6.06
18	77.90	78.78	80.33	80.87	78.15	79.21	1.33
19	74.70	77.60	76.47	77.96	78.67	77.08	1.55
20	77.27	67.94	77.22	73.91	80.41	75.35	4.74
21	174.97	175.67	170.71	166.52	174.92	172.56	3.90
22	218.18	222.78	210.60	215.57	220.01	217.43	4.64
LDPE	205.48	203.87	212.76	190.17	200.06	202.47	8.28

A18. Data for Tensile Strength of the Blend Films After Accelerated Exposure for 20 hours

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	14.57	15.68	15.06	15.21	15.95	15.29	0.54
2	13.42	14.18	13.66	15.01	13.50	13.95	0.66
3	12.49	12.16	11.69	11.94	12.93	12.24	0.48
4	12.19	12.57	12.46	12.58	12.16	12.39	0.20
5	17.16	17.21	17.92	17.26	16.29	17.17	0.58
6	15.23	15.23	14.67	16.16	14.98	15.25	0.56
7	11.90	11.56	12.46	12.94	12.40	12.25	0.53
8	12.39	12.16	12.86	11.24	11.03	11.94	0.78
9	16.31	14.42	15.22	15.44	16.28	15.53	0.79
10	14.37	13.78	14.29	16.20	14.97	14.72	0.93
11	15.58	13.45	13.02	12.51	14.14	13.74	1.19
12	10.80	11.90	12.14	12.18	12.02	11.81	0.57
13	13.75	13.25	13.26	13.63	13.37	13.45	0.23
14	13.66	13.51	12.92	12.87	14.22	13.44	0.56
15	12.64	12.89	12.69	13.55	12.63	12.88	0.39
16	11.57	12.10	11.71	12.47	12.14	12.00	0.36
17	12.13	12.08	12.25	12.22	12.09	12.15	0.08
18	11.93	11.84	11.65	11.88	11.71	11.80	0.12
19	11.16	11.17	11.34	11.39	11.23	11.26	0.10
20	11.32	11.03	11.19	11.16	11.09	11.16	0.11
21	15.65	15.72	15.78	15.47	15.81	15.69	0.14
22	16.55	16.43	16.27	16.47	16.29	16.40	0.12
LDPE	16.08	16.27	16.21	16.14	16.00	16.14	0.11

A19. Data for Elongation at Break of the Blend Films After Accelerated Exposure for 20 hours

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	113.91	111.76	112.01	110.47	112.44	112.12	1.24
2	109.37	103.66	120.54	110.91	115.55	112.01	6.39
3	105.72	110.29	93.96	108.95	109.58	105.70	6.79
4	95.45	94.62	86.41	97.90	88.17	92.51	4.95
5	125.51	118.60	123.96	122.87	126.37	123.46	3.04
6	123.07	121.51	119.36	123.24	123.84	122.20	1.81
7	109.03	101.96	116.52	107.67	105.59	108.15	5.38
8	124.13	116.08	131.95	123.36	125.13	124.13	5.65
9	108.42	97.20	105.43	112.38	99.04	104.49	6.35
10	105.26	105.76	92.17	95.62	105.26	100.81	6.44
11	88.09	93.99	93.31	86.50	93.37	91.05	3.49
12	90.54	91.73	88.11	82.94	84.64	87.59	3.76
13	82.88	84.66	90.97	93.78	83.46	87.15	4.91
14	78.78	84.21	80.27	84.80	78.46	81.30	3.01
15	71.52	80.49	77.35	71.94	82.42	76.74	4.92
16	79.38	73.87	77.90	75.44	71.51	75.62	3.14
17	80.23	81.43	80.72	82.59	78.87	80.77	1.38
18	75.14	76.26	70.88	73.31	80.46	75.21	3.57
19	71.78	70.92	74.15	70.09	70.37	71.46	1.64
20	70.89	70.52	72.36	66.85	69.15	69.95	2.08
21	163.45	167.84	164.57	157.64	155.42	161.78	5.12
22	210.87	207.00	204.36	222.41	198.67	208.66	8.87
LDPE	187.65	183.14	190.01	192.47	186.24	187.90	3.56

A20. Data for Tensile Strength of the Blend Films After Soil Burial Test for 1 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	12.80	14.08	13.70	14.73	13.76	13.81	0.70
2	12.45	13.00	12.52	12.86	13.55	12.88	0.44
3	11.86	12.84	13.12	11.99	11.54	12.27	0.68
4	11.74	11.59	10.68	12.21	12.05	11.65	0.60
5	13.77	13.51	14.74	14.19	13.30	13.90	0.57
6	13.68	13.30	12.68	13.64	13.53	13.37	0.41
7	13.28	13.10	12.88	12.69	12.35	12.86	0.36
8	12.06	12.46	11.73	11.42	12.04	11.94	0.39
9	13.83	13.96	14.13	13.92	14.21	14.01	0.16
10	13.96	15.03	13.53	13.15	13.83	13.90	0.70
11	12.83	13.39	14.59	12.92	11.48	13.04	1.12
12	12.37	10.79	12.60	12.69	12.14	12.12	0.77
13	17.80	15.75	14.72	15.37	14.42	15.61	1.33
14	14.25	14.26	13.61	13.79	14.62	14.11	0.40
15	13.67	13.33	12.68	12.91	13.57	13.23	0.43
16	11.23	12.74	12.78	12.62	12.07	12.29	0.66
17	14.73	15.52	15.22	15.90	16.38	15.55	0.63
18	15.17	14.11	14.22	14.06	13.60	14.23	0.58
19	13.46	13.53	13.58	14.28	13.60	13.69	0.33
20	11.60	12.71	12.73	12.51	12.50	12.41	0.47
21	16.07	16.11	16.52	15.75	16.23	16.14	0.28
LDPE	16.13	16.45	17.24	16.79	17.06	16.73	0.45

A21. Data for Elongation at Break of the Blend Films After Soil Burial Test for 1 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	107.65	109.32	117.10	98.97	105.62	107.73	6.55
2	98.75	105.03	102.17	93.11	92.74	98.36	5.44
3	88.24	86.63	84.04	98.11	95.39	90.48	5.99
4	89.46	79.69	87.89	83.21	86.14	85.28	3.89
5	116.46	102.5	118.44	114.69	106.68	111.75	6.83
6	104.84	100.51	99.36	103.42	100.27	101.68	2.33
7	91.82	82.89	86.15	76.83	91.11	85.76	6.19
8	78.52	73.45	70.37	76.56	79.03	75.59	3.65
9	113.86	122.49	106.42	109.55	113.79	113.22	6.05
10	103.84	109.28	105.89	105.37	106.58	106.19	2.00
11	82.23	87.08	94.28	88.57	98.92	90.22	6.49
12	74.40	78.04	79.20	80.91	78.51	78.21	2.39
13	109.91	114.14	118.50	117.68	114.10	114.87	3.42
14	106.94	107.76	113.11	106.46	112.27	109.31	3.14
15	99.20	80.54	95.11	90.32	96.78	92.39	7.38
16	76.40	78.54	82.59	76.39	85.04	79.79	3.87
17	112.21	108.61	128.07	126.68	113.29	117.77	8.95
18	106.48	108.73	106.48	111.55	113.94	109.44	3.27
19	102.50	94.76	99.50	98.01	89.60	96.87	4.93
20	88.55	85.08	93.78	90.22	92.22	89.97	3.38
21	197.15	196.87	203.04	217.85	200.03	202.99	8.68
LDPE	240.16	252.32	217.19	230.62	238.95	235.85	12.99

A22. Data for Tensile Strength of the Blend Films After Soil Burial Test for 2 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	14.37	12.77	13.73	13.45	13.19	13.50	0.60
2	12.78	11.99	13.78	12.98	12.64	12.83	0.65
3	12.33	12.08	11.84	12.55	11.81	12.12	0.32
4	11.65	11.12	11.77	11.03	11.37	11.39	0.32
5	13.82	14.14	13.77	12.99	13.59	13.66	0.42
6	13.27	13.14	12.86	12.95	12.84	13.01	0.19
7	12.41	13.17	12.72	12.91	12.51	12.74	0.31
8	11.76	12.06	12.11	11.49	11.86	11.86	0.25
9	14.56	12.66	13.40	15.29	13.91	13.96	1.02
10	13.19	12.58	13.91	13.39	14.01	13.42	0.58
11	12.01	12.85	11.99	11.63	11.86	12.07	0.46
12	12.00	12.23	11.99	11.63	11.86	11.94	0.22
13	14.94	14.00	15.36	15.76	15.41	15.09	0.68
14	13.83	13.96	14.13	13.92	14.21	14.01	0.16
15	13.34	13.60	13.64	12.54	13.10	13.24	0.45
16	12.57	11.97	12.38	11.99	12.17	12.22	0.26
17	16.40	15.96	15.50	15.15	14.62	15.53	0.69
18	13.51	13.76	13.96	15.46	14.17	14.17	0.76
19	14.37	12.77	13.73	13.45	13.19	13.50	0.60
20	12.03	12.21	12.71	12.42	12.83	12.44	0.33
21	15.83	15.26	15.72	14.39	17.30	15.70	1.06
LDPE	16.10	17.23	16.04	16.66	16.39	16.48	0.49

A23. Data for Elongation at Break of the Blend Films After Soil Burial Test for 2 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	101.23	109.06	100.22	95.98	103.68	102.03	4.81
2	99.55	83.35	91.22	84.86	80.12	87.82	7.70
3	75.01	80.12	82.84	91.62	76.79	81.28	6.52
4	70.09	69.13	79.02	76.32	77.48	74.41	4.50
5	102.42	113.96	108.34	109.32	109.17	108.64	4.12
6	94.36	106.67	91.63	94.21	102.88	97.95	6.46
7	84.31	89.67	82.63	89.75	77.03	84.68	5.33
8	76.80	75.50	76.14	73.43	74.50	75.27	1.34
9	117.33	111.41	107.99	101.99	114.50	110.64	5.96
10	104.15	104.28	103.45	106.47	109.14	105.50	2.33
11	82.30	93.72	84.13	90.36	86.49	87.40	4.64
12	79.49	80.15	78.19	69.30	77.52	76.93	4.39
13	106.23	113.42	118.68	106.63	111.47	111.29	5.16
14	106.31	106.65	117.29	96.78	102.74	105.95	7.48
15	88.44	94.19	90.19	89.72	90.50	90.61	2.15
16	79.23	79.54	80.31	79.26	78.51	79.37	0.65
17	119.55	112.60	111.44	115.08	104.66	112.67	5.45
18	110.96	110.51	105.29	114.61	106.98	109.67	3.65
19	86.37	93.09	91.43	97.88	96.75	93.10	4.59
20	79.12	81.13	87.92	80.11	82.32	82.12	3.45
21	232.68	202.43	191.62	145.86	237.14	201.95	36.86
LDPE	240.05	228.12	214.86	239.60	234.57	231.44	10.45

A24. Data for Tensile Strength of the Blend Films After Soil Burial Test for 3 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	13.59	12.60	14.27	13.44	13.06	13.39	0.62
2	12.70	12.50	12.29	12.19	12.60	12.46	0.21
3	11.37	12.52	11.89	12.38	11.76	11.98	0.47
4	11.22	11.39	11.01	10.92	11.64	11.24	0.29
5	13.62	13.80	12.87	14.05	13.84	13.64	0.45
6	13.17	12.10	13.07	12.51	13.29	12.83	0.50
7	12.69	13.34	12.27	12.61	12.60	12.70	0.39
8	12.65	10.81	11.19	11.15	11.97	11.55	0.75
9	13.82	13.8	12.97	14.05	13.95	13.72	0.43
10	13.40	12.56	12.78	13.85	13.99	13.32	0.63
11	13.73	12.42	12.11	13.44	12.40	12.82	0.72
12	12.36	11.96	11.23	12.51	11.29	11.87	0.59
13	14.65	13.97	15.27	15.49	15.34	14.94	0.63
14	13.87	13.92	13.56	14.33	13.51	13.84	0.33
15	13.09	12.37	12.84	12.51	13.75	12.91	0.55
16	11.95	12.23	12.02	11.70	11.94	11.97	0.19
17	15.34	15.28	16.24	15.15	15.03	15.41	0.48
18	14.16	14.10	14.29	14.55	13.66	14.15	0.32
19	12.86	12.82	14.06	11.92	12.92	12.92	0.76
20	11.55	12.25	12.38	13.29	12.11	12.32	0.63
21	15.21	15.48	15.30	15.77	15.27	15.41	0.23
LDPE	16.43	16.17	15.97	16.33	16.85	16.35	0.33

A25. Data for Elongation at Break of the Blend Films After Soil Burial Test for 3 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	98.54	102.34	110.12	99.67	108.36	103.81	5.19
2	86.65	80.59	82.93	91.02	87.25	85.69	4.04
3	71.59	80.26	82.78	78.82	76.32	77.95	4.26
4	66.94	72.58	79.63	72.41	62.05	70.72	6.62
5	102.91	104.62	115.66	100.34	104.33	105.57	5.89
6	85.91	99.76	94.39	91.00	98.84	93.98	5.73
7	84.24	87.38	75.22	76.84	83.66	81.47	5.19
8	63.70	75.45	80.41	79.63	67.96	73.43	7.35
9	100.26	115.69	106.11	105.26	105.67	106.60	5.61
10	100.03	101.91	104.27	99.22	107.11	102.51	3.22
11	88.91	84.57	89.66	83.83	82.53	85.90	3.19
12	81.37	77.74	67.22	84.48	70.63	76.29	7.23
13	108.84	111.80	111.42	108.07	107.54	109.53	1.96
14	99.19	105.78	106.13	106.12	104.07	104.26	2.96
15	81.42	99.69	78.66	92.05	99.26	90.22	9.82
16	81.30	68.42	70.92	98.50	76.15	79.06	11.95
17	112.09	115.44	117.83	109.71	99.67	110.95	7.03
18	108.13	108.41	107.96	104.44	100.59	105.91	3.39
19	94.06	88.21	94.09	90.22	90.92	91.50	2.55
20	77.77	75.29	80.91	83.25	83.52	80.15	3.56
21	224.15	207.23	178.87	184.67	210.63	201.11	18.87
LDPE	232.13	250.06	219.08	221.71	230.00	230.60	12.18

A26. Data for Tensile Strength of the Blend Films After Soil Burial Test for 4 month

Sample No.	Tensile Strength (MPa) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	13.20	13.21	13.36	12.98	13.54	13.26	0.21
2	12.74	12.59	12.03	12.11	12.47	12.39	0.31
3	11.56	10.87	11.81	12.13	11.57	11.59	0.46
4	10.34	10.81	11.22	11.63	10.59	10.92	0.51
5	13.55	13.74	13.22	13.76	13.29	13.51	0.25
6	12.05	12.59	13.03	12.69	12.76	12.62	0.36
7	12.23	12.52	12.04	12.65	12.79	12.45	0.31
8	11.54	11.21	11.31	10.84	11.75	11.33	0.34
9	13.45	13.62	13.03	12.82	13.14	13.21	0.32
10	13.48	12.85	12.30	13.07	12.74	12.89	0.43
11	12.62	12.43	13.31	12.11	12.41	12.58	0.45
12	11.41	11.39	12.25	11.83	11.74	11.72	0.35
13	14.30	14.52	13.67	14.66	14.41	14.31	0.38
14	13.73	13.35	13.44	13.61	14.09	13.64	0.29
15	12.31	12.65	12.88	12.03	12.93	12.56	0.38
16	11.01	11.64	12.31	11.22	11.24	11.48	0.51
17	14.98	14.55	14.32	15.26	15.77	14.98	0.58
18	13.74	14.32	13.96	13.95	14.24	14.04	0.24
19	12.63	12.58	12.31	12.62	12.72	12.57	0.16
20	12.02	11.81	12.32	12.17	11.84	12.03	0.22
21	15.39	15.14	15.32	15.32	15.41	15.32	0.11
LDPE	15.71	15.43	16.21	16.06	15.75	15.83	0.31

A27. Data for Elongation at Break of the Blend Films After Soil Burial Test for 4 month

Sample No.	Elongation at Break (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	109.52	90.45	98.63	100.2	103.26	100.41	6.96
2	89.62	84.32	80.11	76.02	80.16	82.05	5.15
3	71.67	64.08	78.77	79.03	61.82	71.07	8.02
4	66.03	60.71	75.42	70.91	68.96	68.41	5.49
5	101.65	103.92	110.91	113.61	94.55	104.93	7.59
6	90.65	99.82	82.61	97.41	93.23	92.74	6.69
7	80.74	75.49	79.44	86.42	80.12	80.44	3.92
8	70.66	80.12	74.56	67.48	69.25	72.41	5.04
9	100.2	114.04	100.52	106.65	105.41	105.36	5.64
10	97.03	99.47	99.82	101.48	110.22	101.60	5.07
11	80.62	82.93	76.65	84.12	82.07	81.28	2.88
12	75.98	79.41	68.63	78.16	77.49	75.93	4.27
13	112.31	107.24	109.62	110.02	104.65	108.77	2.92
14	106.62	101.85	104.74	102.22	96.84	102.45	3.69
15	89.78	87.62	81.08	84.88	91.49	86.97	4.12
16	76.63	71.21	74.55	80.05	72.33	74.95	3.53
17	110.74	109.28	100.06	116.20	108.72	109.00	5.81
18	100.23	100.85	106.96	105.99	110.41	104.89	4.30
19	92.22	97.58	90.60	84.58	91.42	91.28	4.64
20	71.09	78.54	81.28	74.59	71.64	75.43	4.41
21	201.17	187.14	212.34	209.2	197.65	201.50	9.97
LDPE	209.45	200.67	215.21	232.42	216.56	214.86	11.64

A28. Data for Carbonyl Index of the Blend Films After Outdoor Exposure

Sample No.	Exposure Time (months)				
	0	1	2	3	4
1	0	0.110	0.312	0.606	0.821
2	0	0.105	0.331	0.725	0.913
3	0	0.109	0.352	0.845	1.102
4	0	0.200	0.378	1.029	1.123
5	0	0.118	0.375	0.471	0.915
6	0	0.065	0.358	0.753	0.982
7	0	0.059	0.406	0.819	1.155
8	0	0.037	0.400	0.933	1.155
9	0	0.172	0.413	0.751	0.930
10	0	0.193	0.512	0.785	1.014
11	0	0.188	0.522	0.671	0.960
12	0	0.133	0.562	0.750	1.396
13	0	0.172	0.446	0.724	1.037
14	0	0.223	0.506	0.796	1.066
15	0	0.251	0.569	0.704	0.880
16	0	0.260	0.493	1.071	1.007
17	0	0.218	0.429	0.743	0.861
18	0	0.346	0.616	0.846	1.091
19	0	0.304	0.533	0.863	1.013
20	0	0.305	0.565	0.892	1.065
21	0.025	0.422	0.719	1.054	1.065
22	0	0.091	0.245	0.545	0.586
LDPE	0	0.100	0.243	0.559	0.814

A29. Data for Carbonyl Index of the Blend Films After Accelerated Exposure

Sample No.	Exposure Time (hours)				
	0	5	10	15	20
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7	0	0	0	0	0
8	0	0	0	0	0
9	0	0	0	0	0
10	0	0	0.019	0.021	0.031
11	0	0	0	0.023	0.031
12	0	0	0	0	0
13	0	0	0.018	0.018	0.023
14	0	0	0.020	0.025	0.045
15	0	0	0.023	0.035	0.040
16	0	0	0.012	0.024	0.049
17	0	0.024	0.033	0.037	0.057
18	0	0.012	0.022	0.046	0.053
19	0	0	0.023	0.057	0.060
20	0	0	0.028	0.036	0.044
21	0.025	0.037	0.051	0.066	0.093
22	0	0.009	0.011	0.012	0.012
LDPE	0	0.010	0.016	0.019	0.022

A30. Data for Weight Loss of the Blend Films After Burial in Soil for 1 Month

Sample No.	Weight Loss (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	0.2052	0.2124	0.2916	0.2486	0.1806	0.2277	0.0432
2	0.3618	0.2928	0.3194	0.3692	0.3710	0.3428	0.0350
3	0.9297	0.8624	0.9107	0.9198	0.9086	0.9082	0.0267
4	2.1554	2.1637	2.1197	2.1074	2.0933	2.1279	0.0305
5	0.1831	0.2370	0.2484	0.1949	0.1960	0.2119	0.0289
6	0.2923	0.2962	0.2594	0.3173	0.3404	0.3011	0.0302
7	0.9004	0.8963	0.9437	0.9165	0.8891	0.9092	0.0217
8	1.4921	1.5435	1.5618	1.5597	1.5094	1.5333	0.0312
9	0.2310	0.2002	0.1855	0.1568	0.2057	0.1958	0.0273
10	0.2166	0.2301	0.2708	0.2277	0.2240	0.2338	0.0213
11	0.6913	0.6838	0.6867	0.6560	0.6126	0.6660	0.0329
12	1.0628	1.0981	1.0748	1.0166	1.0526	1.0610	0.0300
13	0.1486	0.1670	0.1549	0.1170	0.1707	0.1516	0.0213
14	0.2090	0.2131	0.1892	0.2212	0.2092	0.2083	0.0118
15	0.5714	0.5197	0.5449	0.5814	0.5448	0.5524	0.0244
16	0.9234	0.9281	0.8978	0.9733	0.9301	0.9305	0.0272
17	0.1118	0.1198	0.1527	0.1478	0.1033	0.1271	0.0220
18	0.2144	0.2211	0.2023	0.1775	0.1906	0.2012	0.0176
19	0.5609	0.5512	0.5372	0.5388	0.5116	0.5399	0.0186
20	0.5868	0.6564	0.6038	0.5912	0.6004	0.6077	0.0281
21	0.0191	0.0163	0.0126	0.0108	0.0084	0.0134	0.0043
LDPE	0.0171	0.0217	0.0195	0.0172	0.0203	0.0192	0.0020

A31. Data for Weight Loss of the Blend Films After Burial in Soil for 2 Months

Sample No.	Weight Loss (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	0.6887	0.6083	0.6500	0.6302	0.6601	0.6475	0.0304
2	0.8905	0.9485	0.8242	0.9032	0.8690	0.8871	0.0456
3	1.1107	1.1269	1.1973	1.1570	1.1993	1.1582	0.0402
4	2.5303	2.5671	2.5902	2.5714	2.5545	2.5627	0.0222
5	0.5740	0.5458	0.5431	0.5908	0.5118	0.5531	0.0305
6	0.7358	0.7429	0.7605	0.8036	0.7988	0.7683	0.0314
7	0.8429	1.0225	0.9037	1.1330	1.1568	1.0118	0.1379
8	1.9082	1.9488	1.8727	1.9115	1.9421	1.9167	0.0305
9	0.3751	0.3698	0.4086	0.4394	0.4737	0.4133	0.0439
10	0.6350	0.6152	0.5742	0.4745	0.5764	0.5751	0.0619
11	0.8222	0.8166	0.8055	0.8165	0.8250	0.8172	0.0075
12	1.5672	1.5145	1.5415	1.4829	1.5437	1.5300	0.0323
13	0.4045	0.3912	0.3767	0.4091	0.3664	0.3896	0.0181
14	0.5441	0.6236	0.5432	0.5157	0.5438	0.5541	0.0407
15	0.6996	0.5930	0.6061	0.7128	0.5393	0.6302	0.0739
16	1.2578	1.2681	1.2437	1.2786	1.2279	1.2552	0.0200
17	0.3765	0.3811	0.3732	0.3687	0.4001	0.3799	0.0122
18	0.5173	0.5609	0.5392	0.5513	0.5387	0.5415	0.0164
19	0.5659	0.6376	0.6080	0.5945	0.6188	0.6050	0.0269
20	1.0477	1.0017	1.0029	1.0564	1.0676	1.0353	0.0309
21	0.0145	0.0139	0.0136	0.0177	0.0165	0.0152	0.0018
LDPE	0.0245	0.0239	0.0218	0.0197	0.0248	0.0229	0.0022

A32. Data for Weight Loss of the Blend Films After Burial in Soil for 3 Months

Sample No.	Weight Loss (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	0.7744	0.8542	0.7802	0.7061	0.6836	0.7597	0.0675
2	0.8989	0.8469	0.9777	0.9000	0.9299	0.9107	0.0479
3	1.9919	1.9639	1.9947	1.9836	1.9216	1.9711	0.0302
4	3.1518	3.1886	3.1205	3.1700	3.1766	3.1615	0.0265
5	0.5635	0.5825	0.5849	0.5589	0.5715	0.5723	0.0114
6	0.8523	0.8405	0.8702	0.8640	0.8662	0.8586	0.0121
7	1.4866	1.4787	1.4818	1.3943	1.4517	1.4586	0.0384
8	2.4607	2.4649	2.5034	2.5278	2.4886	2.4891	0.0278
9	0.5223	0.5562	0.5020	0.5417	0.5469	0.5338	0.0217
10	0.7423	0.7527	0.7503	0.7496	0.7539	0.7498	0.0045
11	1.1025	1.1189	1.0935	1.1872	1.0056	1.1015	0.0650
12	1.7569	1.6201	1.6039	1.7307	1.7003	1.6824	0.0675
13	0.4281	0.4070	0.4399	0.3986	0.4047	0.4157	0.0175
14	0.6205	0.5982	0.5714	0.6732	0.6975	0.6322	0.0523
15	0.6831	0.6762	0.6407	0.6491	0.6550	0.6608	0.0181
16	1.4674	1.5234	1.4708	1.4793	1.4983	1.4878	0.0232
17	0.3972	0.3731	0.3908	0.4065	0.4007	0.3937	0.0128
18	0.6292	0.6168	0.6301	0.5982	0.6202	0.6189	0.0129
19	0.6416	0.6680	0.5967	0.6142	0.6372	0.6315	0.0273
20	1.2613	1.2889	1.2919	1.2139	1.2764	1.2665	0.0318
21	0.0134	0.0148	0.0139	0.0172	0.0182	0.0155	0.0021
LDPE	0.0223	0.0276	0.0232	0.0255	0.0239	0.0245	0.0021

A33. Data for Weight Loss of the Blend Films After Burial in Soil for 4 Months

Sample No.	Weight Loss (%) of the Blend Films						
	X1	X2	X3	X4	X5	mean	SD
1	0.9003	1.1092	1.1673	0.9322	0.9569	1.0132	0.1177
2	1.1764	1.2050	1.2178	1.1980	1.1756	1.1946	0.0184
3	2.3302	2.3765	2.3641	2.3703	2.3902	2.3663	0.0224
4	3.5607	3.4986	3.7315	3.7459	3.8608	3.6795	0.1473
5	0.7198	0.7582	0.7673	0.7154	0.7772	0.7476	0.0282
6	1.1165	1.1203	1.1517	1.1500	1.1044	1.1286	0.0212
7	1.8596	1.8609	1.8554	1.8211	1.8864	1.8567	0.0233
8	3.0561	3.2545	3.1897	3.1663	3.2059	3.1745	0.0737
9	0.7066	0.7175	0.7122	0.7087	0.7289	0.7148	0.0089
10	0.9105	0.8978	0.8762	0.9004	0.8914	0.8953	0.0127
11	1.3023	1.3590	1.3782	1.3279	1.3395	1.3414	0.0291
12	1.9864	1.9903	2.0312	2.0273	2.0077	2.0086	0.0205
13	0.6976	0.6883	0.6905	0.7092	0.7177	0.7007	0.0125
14	0.8564	0.8202	0.8397	0.8741	0.8315	0.8444	0.0212
15	1.1348	1.1597	1.2002	1.1977	1.2203	1.1825	0.0345
16	1.7642	1.7394	1.7758	1.7420	1.7510	1.7545	0.0154
17	0.6516	0.6862	0.6148	0.6482	0.6615	0.6525	0.0258
18	0.7980	0.7824	0.8132	0.8067	0.8113	0.8023	0.0126
19	1.0274	1.1063	1.0582	1.0030	0.9678	1.0325	0.0529
20	1.7564	1.7079	1.6944	1.6870	1.7191	1.7130	0.0272
21	0.0173	0.0169	0.0165	0.0171	0.0179	0.0171	0.0005
LDPE	0.0260	0.0247	0.0245	0.0263	0.0251	0.0253	0.0008