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APPENDIX A

Mean Value of Mechanical Properties of ESCOR™325/EAs Blends

Tensile Properties of ESCOR™ 325/EAs Blends

- Young's modulus of ESCOR™ 325/EAs Blends

Table A1 Young's modulus of ESCOR™ 325/EAs blends

E AA Content	EAA1	EAA2	EAA4	EAA5
0	25.81	25.81	25.81	25.81
5	29.59	34.46	27.78	29.74
10	33.46	38.27	38.41	29.28
20	46.23	42.44	46.02	41.10
30	58.22	51.79	47.84	46.99
40	59.78	59.30	59.94	61.04
50	60.29	75.65	57.98	71.21
60	79.72	60.18	70.26	74.16
70	100.95	82.13	80.08	84.19
80	112.33	85.03	93.67	92.25
90	135.41	124.17	97.75	91.37
95	147.29	128.37	124.51	92.04
100	139.11	135.05	130.81	88.35

• Tensile Strength at Break of ESCOR™ 325/EAAs Blends

Table A2 Tensile strength at break of ESCOR™ 325/EAAs blends

EAA Content	EAA1	EAA2	EAA4	EAA5
0	8.24	8.24	8.24	8.24
5	7.78	7.78	9.05	8.35
10	8.08	8.08	8.99	8.55
20	9.26	8.48	9.10	8.36
30	9.26	9.58	8.44	9.45
40	9.83	11.29	9.47	10.11
50	11.75	13.86	11.75	13.69
60	12.65	15.33	12.75	15.49
70	13.79	16.04	14.48	16.63
80	14.22	17.89	16.22	20.40
90	14.02	16.96	16.96	20.40
95	16.15	15.21	17.89	20.67
100	15.19	20.08	20.62	20.37

• Elongation at Break of ESCOR™ 325/EAA Blends

Table A3 Elongation at break of ESCOR™ 325/EAA blends

EAA Content	EAA1	EAA2	EAA4	EAA5
0	824.91	824.91	824.91	824.91
5	831.28	826.89	837.95	853.48
10	805.24	722.57	802.32	851.27
20	681.87	622.35	700.52	704.67
30	612.87	585.23	567.03	597.31
40	588.17	629.21	544.75	544.43
50	627.38	676.63	610.83	637.07
60	636.36	660.84	589.62	639.41
70	622.46	649.16	553.05	623.76
80	578.08	639.29	612.68	617.39
90	482.57	518.99	569.95	613.32
95	572.34	514.74	576.22	591.65
100	481.44	607.02	631.95	630.26

• Hardness of ESCOR™ 325/EAA Blends

Table A4 Hardness of ESCOR™ 325/EAA blends

EAA Content	EAA1	EAA2	EAA4	EAA5
0	22.80	22.80	22.80	22.80
5	24.00	23.00	22.80	22.60
10	24.20	25.40	23.40	23.60
20	25.40	27.20	25.40	25.80
30	29.20	30.60	27.20	29.00
40	33.00	34.00	31.40	34.40
50	36.60	36.20	34.80	35.00
60	40.00	39.60	37.80	38.80
70	44.20	41.00	41.60	44.00
80	45.00	43.80	45.40	45.40
90	46.20	44.80	46.60	47.60
95	47.60	45.20	47.40	48.00
100	45.80	45.00	44.20	42.80

• Gloss value of ESCOR™ 325/EAA Blends

Table A5 Gloss value at 20° of ESCOR™ 325/EAA blends

EAA content (% wt)	EAA1	EAA2	EAA4	EAA5
0	74.22	74.22	74.22	74.22
20	50.54	47.56	61.34	61.36
40	45.16	46.14	54.02	51.26
60	42.12	48.82	53.20	53.08
80	44.64	45.60	50.10	50.78
100	52.12	60.46	61.98	66.68

Table A6 Gloss value at 60° of ESCOR™ 325/EAA blends

EAA content (% wt)	EAA1	EAA2	EAA4	EAA5
0	93.84	93.84	93.84	93.84
20	77.40	81.24	82.98	83.86
40	74.74	80.76	80.90	81.06
60	74.52	78.04	80.62	76.18
80	76.28	77.90	80.02	80.32
100	84.50	87.52	89.00	92.34

APPENDIX B

Rheological Properties of ESCOR™ 325/EAs Blends

Table B1 The complex viscosity (η^* , Pa s) of ESCOR™ 325/EAA1 blends

Freq. Rad/s	EAA1 content					
	0	20	40	60	80	100
0.10000	8206.90	9740.65	10357.50	11592.50	14853.50	12718.00
0.15849	7525.60	8723.45	9247.65	10159.00	13032.50	11261.50
0.25119	6775.10	7754.40	8180.15	8936.45	11376.00	10041.10
0.39811	6030.80	6775.35	7207.70	7786.75	9865.80	8745.05
0.63096	5303.35	5898.70	6258.20	6698.60	8459.80	7548.50
1.00000	4586.70	5057.30	5357.65	5689.30	7184.20	6410.65
1.58490	3914.90	4269.15	4535.90	4740.60	6029.55	5925.90
2.51190	3306.55	3587.15	3785.50	3953.10	5009.55	4915.45
3.98110	2761.40	2981.25	3135.10	3257.00	4139.05	4060.85
6.30960	2288.75	2464.00	2584.15	2667.95	3385.20	3304.25
10.0000	1879.50	2014.65	2103.45	2163.15	2741.50	2668.30
15.8490	1530.80	1648.40	1707.40	1732.00	2197.90	2136.85
25.1190	1244.40	1328.05	1376.70	1402.25	1765.80	1710.75
39.8110	999.97	1062.80	1097.20	1110.20	1397.75	1349.25
63.0960	801.60	849.34	873.02	880.15	1105.85	1063.05
100.000	641.43	676.27	691.31	694.47	873.55	834.72

Table B2 The complex viscosity (η^* , Pa s) of ESCOR™ 325/EAA2 blends

Freq. Rad/s	EAA2 content					
	0	20	40	60	80	100
0.10000	8206.90	11201.00	13423.50	17277.50	21744.50	23234.50
0.15849	7525.60	10072.00	11989.00	15077.50	18833.50	20099.50
0.25119	6775.10	8874.45	10552.50	13059.50	15885.50	17237.00
0.39811	6030.80	7817.20	9179.00	11144.50	13501.00	14653.00
0.63096	5303.35	6746.50	7902.75	9460.60	11227.00	12268.50
1.00000	4586.70	5774.10	6726.20	7934.15	9308.90	10150.00
1.58490	3914.90	4866.30	5627.60	6560.55	7634.00	8310.80
2.51190	3306.55	4082.50	4684.75	5378.55	6232.75	6794.35
3.98110	2761.40	3388.15	3863.00	4403.05	5033.30	5470.20
6.30960	2288.75	2784.65	3162.65	3567.10	4053.00	4373.55
10.0000	1879.50	2276.90	2567.75	2875.75	3242.60	3473.20
15.8490	1530.80	1847.25	2077.25	2301.65	2565.20	2736.90
25.1190	1244.40	1490.25	1665.85	1840.15	2033.25	2167.65
39.8110	999.97	1191.80	1325.10	1450.40	1588.55	1687.60
63.0960	801.60	948.74	1053.00	1143.25	1246.60	1308.15
100.000	641.43	752.75	831.95	899.44	970.57	1013.80

Table B3 The complex viscosity (η^* , Pa s) of Escor™ 325/EAA4 blends

Freq. Rad/s	EAA4 content					
	0	20	40	60	80	100
0.10000	8206.90	8451.15	9621.40	11430.00	14573.00	15174.00
0.15849	7525.60	7549.70	8560.25	10323.00	12717.00	13579.50
0.25119	6775.10	6674.00	7658.90	8825.35	11098.50	11985.50
0.39811	6030.80	5909.20	6769.05	7756.95	9575.55	10437.50
0.63096	5303.35	5170.00	5872.60	6613.55	8190.00	8956.65
1.00000	4586.70	4431.65	5027.55	5637.15	6934.70	7599.90
1.58490	3914.90	3824.00	4233.75	4729.65	5798.80	6349.20
2.51190	3306.55	3213.85	3524.45	3922.45	4813.45	5252.40
3.98110	2761.40	2668.80	2907.85	3226.90	3955.50	4310.85
6.30960	2288.75	2199.00	2400.90	2642.95	3235.10	3519.60
10.0000	1879.50	1796.95	1960.30	2141.15	2622.60	2837.50
15.8490	1530.80	1477.25	1565.00	1735.10	2103.65	2273.85
25.1190	1244.40	1195.10	1274.60	1388.05	1692.25	1821.45
39.8110	999.97	956.91	1012.75	1105.40	1338.85	1437.55
63.0960	801.60	762.49	803.33	873.75	1052.55	1128.50
100.000	641.43	609.14	638.87	689.56	832.49	888.58

Table B4 The complex viscosity (η^* , Pa s) of Escor™ 325/EAA5 blends

Freq. Rad/s	EAA5 content					
	0	20	40	60	80	100
0.10000	8206.90	757.68	744.68	815.03	875.44	974.79
0.15849	7525.60	945.76	933.17	1025.00	1104.45	1232.90
0.25119	6775.10	1180.45	1170.55	1291.35	1389.60	1556.85
0.39811	6030.80	1466.75	1456.95	1616.20	1744.15	1958.10
0.63096	5303.35	1800.05	1793.05	1998.50	2152.60	2409.95
1.00000	4586.70	2217.95	2205.65	2519.30	2683.70	3036.50
1.58490	3914.90	2698.85	2690.65	3085.10	3293.45	3734.35
2.51190	3306.55	3248.95	3261.20	3751.20	4011.80	4553.30
3.98110	2761.40	3878.40	3910.75	4516.40	4838.15	5495.55
6.30960	2288.75	4592.25	4659.00	5407.65	5823.55	6606.65
10.0000	1879.50	5488.30	5505.25	6452.95	7026.50	7905.00
15.8490	1530.80	6331.90	6415.90	7551.95	8231.90	9292.60
25.1190	1244.40	7234.05	7374.10	8735.75	9564.70	10799.00
39.8110	999.97	8175.05	8380.25	10005.00	11005.50	12356.00
63.0960	801.60	9165.00	9347.15	11279.50	12582.00	13893.00
100.000	641.43	10031.10	10331.00	12675.00	14225.00	15536.00

Table B5 Rheological properties (G' , dyn/cm²) of Escor™ 325/EAA1 blends

Freq (rad/s)	EAA1 content					
	0	20	40	60	80	100
0.10000	474.25	645.57	503.66	388.21	363.97	233.89
0.15849	745.03	941.35	730.42	582.55	556.95	398.10
0.25119	1155.12	1361.65	1058.35	876.78	836.38	641.21
0.39811	1740.92	1969.15	1539.20	1324.25	1232.35	990.41
0.63096	2556.08	2814.80	2211.00	1945.25	1816.25	1528.80
1.00000	3679.00	3968.10	3131.50	2808.05	2619.65	2248.70
1.58489	5326.60	5516.30	4337.85	4023.80	3712.70	3261.25
2.51189	7357.32	7554.45	5939.05	5542.65	5158.35	4611.95
3.98107	10083.28	10281.00	8054.85	7565.60	7082.70	6389.90
6.30957	13532.20	13796.50	10835.50	10265.00	9642.30	8767.95
10.0000	17981.00	18296.50	14399.00	13707.50	12931.00	11853.00
15.8489	23570.00	24043.00	18783.50	18313.50	17477.50	16017.50
25.1189	30459.80	31355.00	24860.50	23993.50	22970.00	21080.50
39.8107	38890.60	40215.00	31779.00	30874.50	29600.00	27439.50
63.0957	49339.60	51196.00	40402.50	39652.50	38118.50	35354.50
100.000	62079.40	65261.50	51138.50	50081.50	48611.00	45463.00

Table B6 Rheological properties (G' , dyn/cm²) of Escor™ 325/EAA2 blends

Freq (rad/s)	EAA2 content					
	0	20	40	60	80	100
0.10000	1015.50	1068.90	806.75	507.50	414.96	233.89
0.15849	1530.75	1557.60	1158.85	782.64	633.41	398.10
0.25119	2222.80	2172.40	1665.75	1184.00	965.68	641.21
0.39811	3192.30	3044.75	2356.75	1753.60	1452.15	990.41
0.63096	4465.00	4153.90	3321.30	2551.70	2113.85	1528.80
1.00000	6145.55	5675.50	4604.30	3651.45	3040.50	2248.70
1.58489	8399.50	7669.80	6299.25	5092.40	4272.90	3261.25
2.51189	11333.50	10217.00	8482.75	7021.35	5953.95	4611.95
3.98107	14818.50	13444.00	11355.50	9562.55	8161.95	6389.90
6.30957	19308.00	17642.00	15038.00	12829.00	11031.00	8767.95
10.0000	24866.00	22898.50	19748.50	17024.00	14784.00	11853.00
15.8489	318171.50	29438.00	25709.00	22566.50	19732.50	16017.50
25.1189	40846.50	37688.50	33253.50	29339.00	25849.50	21080.50
39.8107	51105.00	47547.50	42273.00	37718.50	33375.00	27439.50
63.0957	63538.50	59943.00	53600.50	48153.50	42809.00	35354.50
100.000	79070.00	74738.00	67713.00	61422.50	54698.00	45463.00

Table B7 Rheological properties (G' , dyn/cm²) of Escor™325/EAA4 blends

Freq (rad/s)	EAA4 content					
	0	20	40	60	80	100
0.10000	538.26	628.41	499.19	354.90	315.99	233.89
0.15849	864.83	914.85	747.98	551.39	467.16	398.10
0.25119	1320.10	1334.00	1060.70	829.60	716.26	641.21
0.39811	1998.45	1917.50	1544.70	1260.60	1077.45	990.41
0.63096	2920.25	2748.25	2186.55	1850.35	1602.65	1528.80
1.00000	4168.95	3865.20	3104.35	2675.55	2288.55	2248.70
1.58489	5814.60	5334.75	4430.20	3779.15	3439.25	3261.25
2.51189	7993.00	7320.85	6035.95	5286.05	4689.75	4611.95
3.98107	10826.00	9881.50	8081.85	7118.25	6394.35	6389.90
6.30957	14529.00	13230.00	10860.00	9667.55	8674.85	8767.95
10.0000	19194.50	17562.50	14351.00	12957.00	11630.50	11853.00
15.8489	25192.00	22940.00	19160.50	16927.00	15757.00	16017.50
5.1189	32802.00	29991.50	24693.50	22392.00	20734.50	21080.50
39.8107	41814.50	38487.00	31795.00	28622.00	26712.50	27439.50
63.0957	52735.00	48668.00	40158.50	36478.50	34161.00	35354.50
100.000	66871.00	61900.00	50716.50	46333.50	43652.00	45463.00

Table B8 Rheological properties (G' , dyn/cm²) of Escor™325/EAA5 blends

Freq (rad/s)	EAA5 content					
	0	20	40	60	80	100
0.10000	557.53	590.33	506.74	359.42	331.16	233.89
0.15849	869.87	875.34	761.54	557.16	530.53	398.10
0.25119	1352.00	1287.45	1129.95	865.63	820.84	641.21
0.39811	2032.05	1877.90	1660.95	1313.45	1250.85	990.41
0.63096	2975.40	2701.20	2413.90	1950.90	1877.90	1528.80
1.00000	4262.05	3854.25	3451.05	2815.30	2757.20	2248.70
1.58489	5972.55	5251.60	4811.50	4071.25	3865.05	3261.25
2.51189	8241.75	7199.70	6654.60	5594.05	5437.75	4611.95
3.98107	11258.00	9809.65	9124.10	7719.45	7565.95	6389.90
6.30957	15181.50	13225.00	12310.50	10481.00	10350.00	8767.95
10.0000	20222.50	17633.00	16474.50	14087.50	13969.00	11853.00
15.8489	26076.50	23119.00	21338.00	18791.50	18589.00	16017.50
25.1189	34645.50	30421.00	28042.00	24746.00	24668.50	21080.50
39.8107	44567.00	39250.00	36246.00	32284.50	32247.50	27439.50
63.0957	57021.50	50453.50	46498.50	41600.00	41826.50	35354.50
100.000	72388.00	64513.00	59603.00	53579.50	54142.50	45463.00

Table B9 Rheological properties (G'' , dyn/cm²) of Escor™ 325/EAA1 blends

Freq (rad/s)	EAA1 content					
	0	20	40	60	80	100
0.10000	1230.65	1337.75	1044.10	960.15	903.49	786.65
0.15849	1708.03	1838.50	1434.90	1344.90	1265.45	1124.35
0.25119	2370.63	2512.20	1979.55	1858.30	1759.10	1576.40
0.39811	3209.08	3398.35	2690.85	2545.55	2399.35	2187.10
0.63096	4291.60	4535.30	3602.05	3436.25	3248.60	2976.50
1.00000	5652.05	5988.90	4749.85	4562.80	4325.95	3997.60
1.58489	7615.25	7803.25	6134.65	5957.25	5656.50	5278.55
2.51189	9778.78	10063.35	7957.80	7726.30	7387.95	6907.60
3.98107	12440.25	12877.00	10161.00	9926.50	9523.70	8945.60
6.30957	15615.25	16305.50	12883.00	12668.00	12195.00	11474.50
10.0000	19580.75	20415.50	16143.00	15954.50	15449.00	14586.00
15.8489	23882.25	25206.50	20016.50	19922.00	19418.00	18223.00
25.1189	29657.25	31373.00	24951.50	24902.50	24191.00	23081.00
39.8107	36154.50	38459.50	30717.50	30899.50	30230.50	28841.50
63.0957	44215.50	47403.50	38100.50	38235.50	37667.00	36167.50
100.000	53975.50	58066.50	46986.00	47654.50	47014.50	45248.50

Table B10 Rheological properties (G'' , dyn/cm²) of Escor™ 325/EAA2 blends

Freq (rad/s)	EAA2 content					
	0	20	40	60	80	100
0.10000	2089.70	1882.10	1527.80	1242.70	1040.40	786.65
0.15849	2793.55	2546.25	2089.75	1731.45	1465.30	1124.35
0.25119	3715.70	3347.00	2825.90	2371.60	2009.10	1576.40
0.39811	4882.50	4429.30	3759.05	3206.00	2752.50	2187.10
0.63096	6323.50	5738.05	4959.95	4283.95	3694.85	2976.50
1.00000	8078.55	7378.65	6461.45	5648.75	4908.65	3997.60
1.58489	10146.00	9357.55	8272.40	7322.45	6420.70	5278.55
2.51189	12760.50	11862.50	10515.50	9443.45	8349.35	6907.60
3.98107	15958.00	14858.50	13353.50	12044.00	10739.00	8945.60
6.30957	19715.00	18513.00	16745.50	15285.00	13675.50	11474.50
10.0000	24249.00	22959.00	20904.50	19223.00	17316.00	14586.00
15.8489	29424.00	28039.50	25879.00	23971.50	21629.00	18223.00
25.1189	36002.50	34467.50	32103.50	29834.00	27073.50	23081.00
39.8107	43612.50	41698.00	39332.00	36881.00	33724.00	28841.50
63.0957	52680.00	50924.50	48275.50	45773.50	41842.00	36167.50
100.000	63454.00	61921.50	59202.50	56112.00	51714.00	45248.50

Table B11 Rheological properties (G'' , dyn/cm²) of Escor™ 325/EAA4 blends

Freq (rad/s)	EAA4 content					
	0	20	40	60	80	100
0.10000	1418.60	1314.80	1028.20	894.15	783.82	786.65
0.15849	1970.80	1795.85	1454.95	1239.60	1101.60	1124.35
0.25119	2705.50	2448.00	1946.60	1735.80	1515.75	1576.40
0.39811	3643.10	3294.75	2673.95	2381.75	2091.25	2187.10
0.63096	4838.30	4376.15	3554.15	3210.25	2841.20	2976.50
1.00000	6354.45	5757.65	4705.30	4256.60	3795.00	3997.60
1.58489	8212.80	7483.70	6046.80	5544.70	4990.20	5278.55
2.51189	10496.50	9622.55	7787.45	7107.55	6573.00	6907.60
3.98107	13316.50	12260.50	9985.75	9129.10	8485.05	8945.60
6.30957	16794.00	15544.00	12655.00	11662.50	10828.00	11474.50
10.0000	20897.50	19477.50	15890.50	14710.00	13698.00	14586.00
15.8489	25770.00	24194.50	19726.00	18129.00	17315.50	18223.00
25.1189	31835.00	30122.00	24614.50	22881.50	21709.50	23081.00
39.8107	39074.00	36875.50	30424.00	28396.00	27160.00	28841.50
63.0957	47841.00	45189.50	37770.50	35191.50	33876.00	36167.50
100.000	58515.50	55665.50	46721.00	43985.00	42485.50	45248.50

Table B12 Rheological properties (G'' , dyn/cm²) of Escor™ 325/EAA5 blends

Freq (rad/s)	EAA5 content					
	0	20	40	60	80	100
0.10000	1450.10	1294.15	1161.80	968.55	946.86	786.65
0.15849	2022.75	1791.70	1617.35	1372.65	1352.20	1124.35
0.25119	2793.70	2446.35	2244.75	1918.80	1882.30	1576.40
0.39811	3788.70	3312.55	3055.45	2625.45	2594.15	2187.10
0.63096	5052.15	4436.30	4108.30	3547.05	3526.30	2976.50
1.00000	6657.60	5875.10	5452.65	4730.95	4745.45	3997.60
1.58489	8600.40	7590.00	7092.50	6195.55	6167.20	5278.55
2.51189	11074.00	9790.70	9187.95	8074.90	8083.30	6907.60
3.98107	14207.50	12603.00	11822.50	10438.50	10490.50	8945.60
6.30957	18019.00	16028.00	15078.50	13355.00	13522.00	11474.50
10.0000	22652.00	20231.00	19060.00	16971.50	17227.50	14586.00
15.8489	27908.50	25089.50	23408.50	21317.50	21641.50	18223.00
25.1189	34912.00	31528.00	29355.50	26962.00	27365.00	23081.00
39.8107	43042.00	38985.00	36456.00	33604.50	34185.00	28841.50
63.0957	52914.50	48069.50	44947.50	41667.00	42561.50	36167.50
100.000	65285.00	59177.00	55588.50	51717.50	53003.00	45248.50

APPENDIX C

Melting, Crystalline Temperature, and Percent Crystallinity of ESCOR™ 325/EAAs Blends Measured by DSC

Table C1 Melting, crystallization temperature, and percent crystallinity of blends
ESCOR™ 325/EAA1 measured by DSC

EAA1 Content	T _m (°C)	T _c (°C)
0	69.93	50.73
5	70.26	53.57
10	69.85	58.78
20	70.10, 100.35	53.07, 87.90
30	69.93, 100.85	52.06, 88.98
40	68.60, 100.52	53.73, 88.98
50	69.85, 100.60	53.57, 88.57
60	68.10, 100.52	52.73, 88.57
70	68.68, 100.68	52.48, 88.90
80	101.02	89.15
90	101.10	88.90
95	101.10	89.81
100	100.52	87.23

Table C2 Melting, crystallization temperature, and percent crystallinity of ESCOR™ 325/EAA2 blends measured by DSC

EAA2 Content	T _m (°C)	T _c (°C)
0	69.93	50.73
5	69.02	53.40
10	75.85, 99.10	53.40, 85.73
20	63.02, 98.10	53.23, 85.65
30	70.27, 98.10	53.15, 85.40
40	61.35, 97.43	52.98, 84.40
50	65.35, 97.60	52.65, 84.57
60	66.60, 97.68	52.48, 84.73
70	66.60, 97.68	51.48, 84.90
80	98.27	84.98
90	98.27	85.48
95	98.27	85.48
100	97.18	83.48

Table C3 Melting, crystallization temperature, and percent crystallinity of ESCOR™ 325/EAA4 blends measured by DSC

EAA4 Content	T _m (°C)	T _c (°C)
0	69.93	50.73
5	71.77	53.73
10	71.68	53.65
20	71.68, 96.83	53.23, 82.98
30	70.43, 96.77	52.98, 83.40
40	75.35, 96.77	52.82, 83.82
50	75.35, 96.85	52.90, 83.73
60	75.43, 96.93	52.07, 83.90
70	75.32, 96.27	52.04, 84.07
80	97.27	84.15
90	97.35	84.65
95	97.43	84.98
100	96.52	82.15

Table C4 Melting, crystallization temperature, and percent crystallinity of ESCOR™ 325/EAA5 blends measured by DSC

EAA5 Content	T _m (°C)	T _c (°C)
0	69.93	50.73
5	69.27	53.73
10	68.60	53.48
20	62.93, 93.18	53.40, 77.07
30	61.93, 92.02	52.90, 77.73
40	62.93, 93.18	52.73, 78.32
50	62.93, 93.10	52.82, 78.98
60	58.93, 93.10	51.98, 78.93
70	58.92, 93.35	51.79, 79.40
80	93.52	79.57
90	93.68	79.73
95	94.02	79.82
100	93.43	76.07

APPENDIX D

X-ray diffraction Measurement

The crystal lattice spacings and the degree of crystallization of ESCOR™ 325/EAA1 blends were determined by X-ray diffraction

Crystal lattice spacing patterns

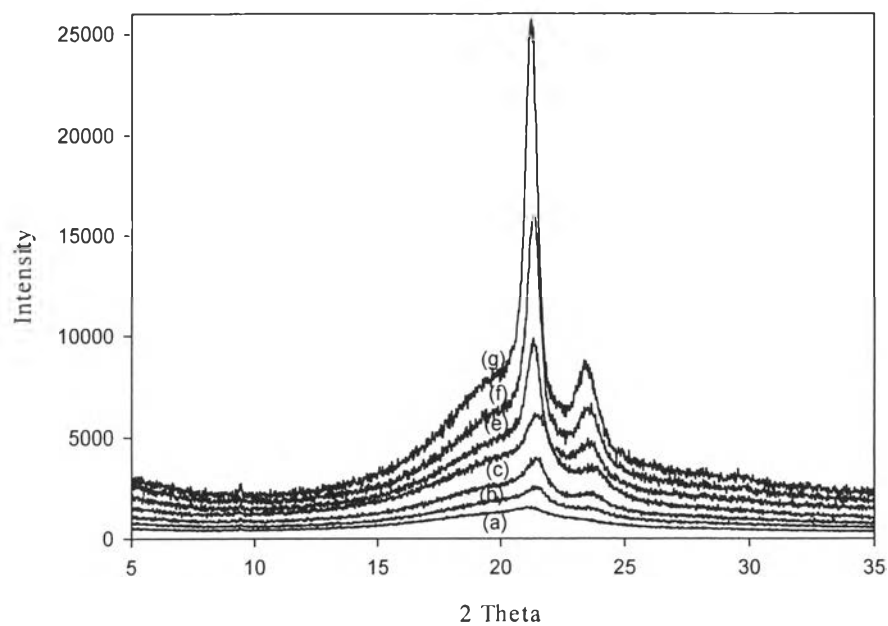


Figure D1 X-ray diffraction patterns of ESCOR™ 325/EAA1 blends : (a) pure ESCOR™ 325, (b) 20% EAA1, (c) 40% EAA1, (d) 50% EAA1, (e) 60% EAA1, (f) 80%EAA1, and (g) pure EAA1.

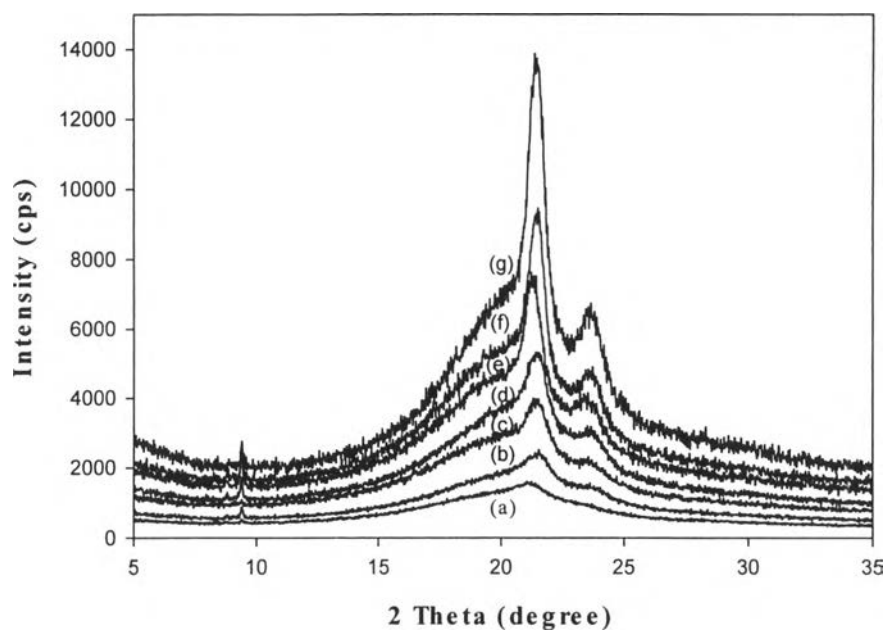


Figure D2 X-ray diffraction patterns of ESCOR™ 325/EAA2 blends: (a) pure ESCOR™ 325, (b) 20% EAA2, (c) 40% EAA2, (d) 50% EAA2, (e) 60% EAA2, (f) 80% EAA2, and (g) pure EAA2.

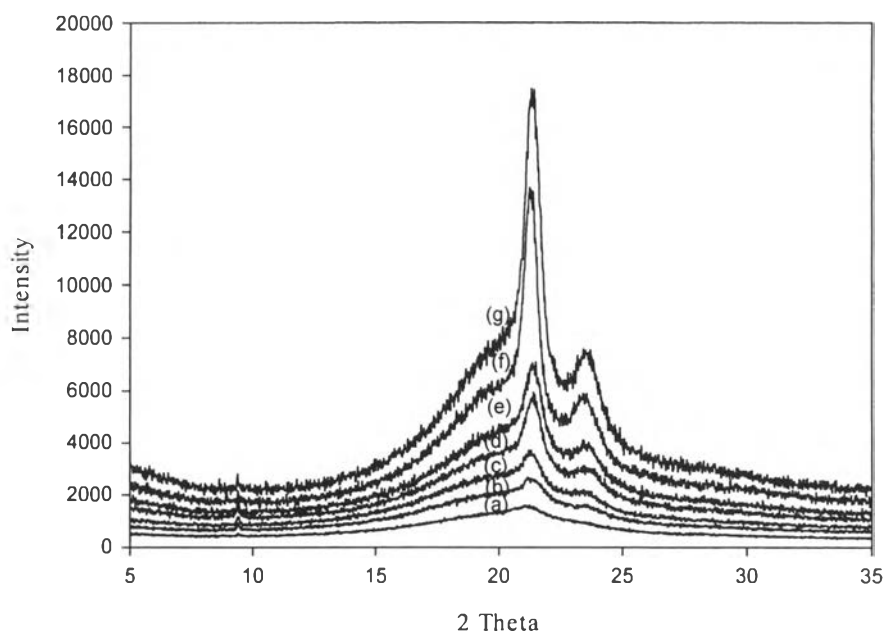


Figure D3 X-ray diffraction patterns of ESCOR™ 325/EAA4 blends: (a) pure ESCOR™ 325, (b) 20% EAA4, (c) 40% EAA4, (d) 50% EAA4, (e) 60% EAA4, (f) 80% EAA4, and (g) pure EAA4.

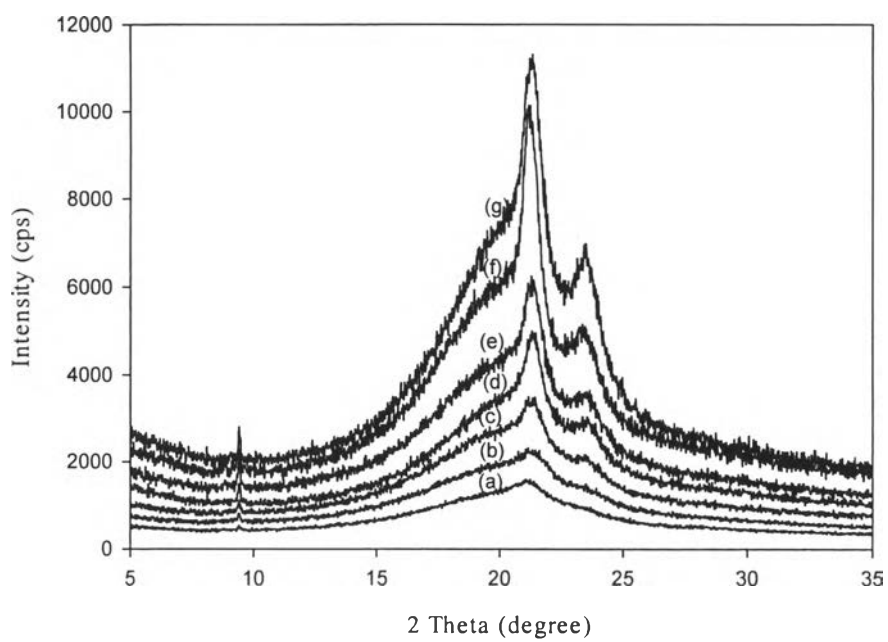


Figure D4 X-ray diffraction patterns of ESCOR™ 325/EAA5 blends: (a) pure ESCOR™ 325, (b) 20% EAA5, (c) 40% EAA5, (d) 50% EAA5, (e) 60% EAA5, (f) 80% EAA5, and (g) pure EAA5.

Percent crystallinity of ESCOR™325/EAA blends.

Table D1 Crystal lattice structure and percent crystallinity of ESCOR™ 325 and EAA1 blends from X-ray measurement

EAA1 Content	Percent Crystallinity	d-spacing		2θ	
		110	200	110	200
0	5.71	4.16	3.88	21.40	23.52
20	10.98	4.10	3.75	21.39	23.71
40	12.84	4.06	3.76	21.34	23.74
50	13.84	4.15	3.72	21.48	23.81
60	13.94	4.16	3.74	21.30	23.64
80	21.89	4.17	3.72	21.31	23.61
100	21.77	4.17	3.76	21.22	23.51

Table D2 Crystal lattice structure and percent crystallinity of ESCOR™ 325 and EAA2 blends from X-ray measurement

EAA2 Content	Percent Crystallinity	d-spacing		2 θ	
		110	200	110	200
0	5.71	4.16	3.88	21.40	23.52
20	10.53	4.12	3.76	21.69	23.77
40	12.60	4.15	3.71	21.33	23.59
50	12.78	4.10	3.75	21.37	23.78
60	13.36	4.17	3.77	21.29	23.80
80	15.41	4.13	3.75	21.44	23.71
100	17.96	4.16	3.71	21.41	23.71

Table D3 Crystal lattice structure and percent crystallinity of ESCOR™ 325 and EAA4 blends from X-ray measurement

EAA4 Content	Percent Crystallinity	d-spacing		2 θ	
		110	200	110	200
0	5.71	4.16	3.88	21.40	23.52
20	10.94	4.19	3.77	21.34	23.67
40	11.87	4.14	3.74	21.28	23.60
50	12.60	4.16	3.78	21.37	23.71
60	12.75	4.17	3.76	21.37	23.65
80	16.45	4.17	3.77	21.28	23.57
100	16.40	4.15	3.83	21.35	23.64

Table D4 Crystal lattice structure and percent crystallinity of ESCOR™ 325 and EAA5 blends from X-ray measurement

EAA5 Content	Percent Crystallinity	d-spacing		2 θ	
		110	200	110	200
0	5.71	4.16	3.88	21.40	23.52
20	9.05	4.18	3.76	21.28	23.64
40	9.45	4.19	3.73	21.44	23.60
50	9.81	4.17	3.72	21.33	23.66
60	10.44	4.19	3.79	21.33	23.63
80	11.24	4.17	3.82	21.24	23.56
100	11.94	4.14	3.75	21.30	23.59

APPENDIX E

Non-isothermal Crystallization Kinetic

Table E1 Non-isothermal crystallization kinetic based on Avrami and Tobin approach of EAA1

ϕ (°C min ⁻¹)	EAA1					
	Avrami			Tobin		
	n_a	k_a (min ⁻ⁿ)	r^2	n_t	k_t (min ⁻ⁿ)	r^2
5	2.95	3.0938	0.9996	4.64	11.9890	0.9987
10	2.47	11.8163	0.9998	4.34	155.0009	0.9981
15	2.78	26.9747	0.9994	4.04	240.0019	0.9990
20	2.75	53.4394	0.9989	4.02	575.7537	0.9972
30	2.65	60.0017	0.9985	3.79	660.0005	0.9984
40	2.47	80.0022	0.9987	3.51	940.5560	0.9976
50	2.43	81.9972	0.9992	3.50	1113.8510	0.9991

Table E2 Non-isothermal crystallization kinetic based on Avrami and Tobin approach of EAA2

ϕ (°C min ⁻¹)	EAA2					
	Avrami			Tobin		
	n_a	k_a (min ⁻ⁿ)	r^2	n_t	k_t (min ⁻ⁿ)	r^2
5	2.80	3.1211	0.9998	4.48	12.2050	0.9977
10	2.53	9.0042	0.9982	3.68	45.8911	0.99914
15	2.45	20.72452	0.9987	3.53	121.1762	0.9995
20	2.43	26.4320	0.9984	3.38	160.0062	0.9930
30	2.30	33.009	0.9990	3.00	178.5694	0.9973
40	2.30	46.2983	0.9989	2.93	245.0059	0.9951
50	2.27	76.0442	0.9995	2.89	449.9998	0.9963

Table E3 Non-isothermal crystallization kinetic based on Avrami and Tobin approach of EAA4

ϕ (°C min ⁻¹)	EAA4					
	Avrami			Tobin		
	n_a	k_a (min ⁻ⁿ)	r^2	n_t	k_t (min ⁻ⁿ)	r^2
5	2.72	2.6307	0.9965	3.90	6.9406	0.9976
10	2.78	5.7310	0.9985	4.07	24.7516	0.9988
15	2.92	27.3575	0.9998	3.87	149.1000	0.9951
20	2.71	35.7223	0.9996	3.70	245.0009	0.9974
30	2.60	50.0000	0.9994	3.56	399.5625	0.9978
40	2.51	60.0177	0.9994	3.78	849.9999	0.9970
50	2.53	81.9732	0.9998	3.59	1015.0001	0.9970

Table E4 Non-isothermal crystallization kinetic based on Avrami and Tobin approach of EAA5

ϕ (°C min ⁻¹)	EAA5					
	Avrami			Tobin		
	n_a	k_a (min ⁻ⁿ)	r^2	n_t	k_t (min ⁻ⁿ)	r^2
5	2.76	0.9761	0.9994	4.74	1.9066	0.9980
10	3.02	7.0319	0.9998	4.62	37.0009	0.9972
15	2.92	15.2389	0.9996	4.32	103.1787	0.9962
20	3.07	27.9986	0.9990	4.06	150.0088	0.9934
30	2.84	67.3047	0.9999	3.42	260.0274	0.9927
40	2.81	72.0093	0.9996	3.39	300.0026	0.9913
50	2.89	77.9992	0.9996	3.57	400.0034	0.9960

Table E5 Non-isothermal crystallization kinetic based on Avrami and Tobin approach of ESCOR™ 310

ϕ (°C min ⁻¹)	Escor310					
	Avrami			Tobin		
	n_a	k_a (min ⁻ⁿ)	r^2	n_t	k_t (min ⁻ⁿ)	r^2
5	2.54	2.0497	0.9999	4.46	7.1753	0.9974
10	2.72	7.7483	0.9998	4.34	50.0010	0.9989
15	2.64	18.0005	0.9995	3.99	150.0313	0.9991
20	2.44	25.0988	1.0000	3.67	250.0013	0.9974
30	2.35	64.6817	1.0000	3.23	550.0040	0.9961
40	2.35	69.9962	1.0000	3.26	680.0003	0.9966

Table A6 Non-isothermal crystallization kinetic based on Avrami and Tobin approach of ESCOR™ 320

ϕ (°C min ⁻¹)	Escor320					
	Avrami			Tobin		
	n_a	k_a (min ⁻ⁿ)	r^2	n_t	k_t (min ⁻ⁿ)	r^2
5	2.43	1.0280	0.9999	4.37	2.1060	0.9964
10	2.64	4.9037	0.9999	4.35	27.1126	0.9981
15	2.37	12.5901	0.9998	3.59	81.3160	0.9985
20	2.35	26.5575	0.9998	3.43	220.0028	0.9962

Table E7 Non-isothermal crystallization kinetic based on Avrami and Tobin approach of ESCOR™ 325

ϕ (°C min ⁻¹)	Escor325					
	Avrami			Tobin		
	n_a	k_a (min ⁻ⁿ)	r^2	n_t	k_t (min ⁻ⁿ)	r^2
5	2.79	0.6640	0.9997	4.59	1.0258	0.9981
10	2.78	5.1638	0.9978	4.26	21.2210	0.9972
15	2.76	9.5863	0.9991	4.25	61.2176	0.9959
20	2.69	36.7192	0.9996	3.57	200.0010	0.9954

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