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APPENDIX



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Appendix –A1 Results of quality-4 weeks retted husks

Summary Results of Coir Sample	Report No			Sample Values
Fiber Type: Bristle fiber/ 1 month				
				Results
Date	Sp. 1	Sp. 2	Sp. 3	
				Final Average
1. Dimension				
1.1 Average Length, mm	133.20	134.20	132.70	133.37
Coefficient of Variation(C.V.)	0.56	0.55	0.55	0.55
1.2 Average Diameter, mm	0.25	0.23	0.24	0.24
Coefficient of Variation(C.V.)	0.25	0.22	0.28	0.25
1.3 Weighted Average Diameter	0.24	0.22	0.24	0.23
2. Fineness g/km	59.87	54.87	55.09	56.44
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3. Tensile				
3.1 Tensile Strength N/mm²	78.48	77.25	89.81	81.85
Coefficient of Variation(C.V.)	0.02	0.01	0.01	0.01
3.2. Elongation, %	24.21	26.71	26.75	25.89
Coefficient of Variation(C.V.)	0.44	0.30	0.34	0.36
3.3 Breaking Load N	3.58	3.16	4.01	3.58
Coefficient of Variation(C.V.)	0.33	0.37	0.29	0.33
**. Weighted Average				
4.1 Weighted average Breaking Load N	133.20	134.20	132.70	133.37
4.2 Weighted Average Tensile Strength N/mm ²	0.56	0.55	0.55	0.55

Appendix –A2

Results of quality-6 weeks retted husks

Summary Results of Coir Sample		Report No		Sample Values
Fiber Type: Bristle fiber/ 1.5 months				
	Results			
Date	Sp. 1	Sp. 2	Sp. 3	Final Average
1. Dimension				
1.1 Average Length, mm	137.78	134.26	137.86	136.64
Coefficient of Variation(C.V.)	55.15%	54.83%	54.19%	55%
1.2 Average Diameter, mm	0.24	0.23	0.25	0.24
Coefficient of Variation(C.V.)	25.70%	23.62%	21.00%	24%
1.3 Weighted Average Diameter	0.24	0.22	0.24	0.23
2. Fineness g/km	54.76	54.69	51.59	53.68
University of Moratuwa Sri Lanka Electronic Theses & Dissertations www.lib.mrt.ac.lk				
3. Tensile				
3.1 Tensile Strength N/mm²	77.49	91.51	81.56	83.52
Coefficient of Variation(C.V.)	1.93%	1.37%	1.42%	2%
3.2. Elongation, %	28.52	28.70	23.99	27.07
Coefficient of Variation(C.V.)	25%	26%	34%	28.19%
3.3 Breaking Load N	3.62	3.50	3.72	3.61
Coefficient of Variation(C.V.)	41%	36%	31%	36%
**. Weighted Average				
4.1 Weighted average Breaking Load N	3.59	3.46	3.57	3.54
4.2 Weighted Average Tensile Strength N/mm ²	77.80	96.57	82.00	85.46

Appendix –A3

Results of quality-8 weeks retted husks

Summary Results of Coir Sample		Report No		Sample Values
Fiber Type: Bristle fiber/ 2 months				
Results				
Date	Sp. 1	Sp. 2	Sp. 3	Final Average
1. Dimension				
1.1 Average Length, mm	164.22	134.20	129.50	142.64
Coefficient of Variation(C.V.)	0.40	0.55	0.55	0.49
1.2 Average Diameter, mm	0.23	0.23	0.24	0.23
Coefficient of Variation(C.V.)	0.30	0.24	0.27	0.27
1.3 Weighted Average Diameter	0.24	0.22	0.23	0.23
2. Fineness, g/km	54.56	54.37	49.87	52.93
 University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk				
3. Tensile				
3.1 Tensile Strength N/mm²	90.03	91.51	101.11	94.22
Coefficient of Variation(C.V.)	0.02	0.01	0.01	0.01
3.2. Elongation, %	26.54	28.71	23.85	26.37
Coefficient of Variation(C.V.)	0.25	0.26	0.38	0.30
3.3 Breaking Load N	3.62	3.50	4.32	3.81
Coefficient of Variation(C.V.)	0.41	0.36	0.33	0.36
**. Weighted Average				
4.1 Weighted average Breaking Load N	3.97	3.45	4.19	3.87
4.2 Weighted Average Tensile Strength N/mm ²				

Appendix –A4

Results of quality-10 weeks retted husks

Summary Results of Coir Sample		Report No		Sample Values
Fiber Type: Bristle fiber/ 2.5 months				
				Results
Date	Sp. 1	Sp. 2	Sp. 3	Final
				Average
1. Dimension				
1.1 Average Length, mm	162.04	174.20	168.45	168.22
Coefficient of Variation(C.V.)	43.05%	36.25%	39.66%	0.39
1.2 Average Diameter, mm	0.22	0.23	0.22	0.22
Coefficient of Variation(C.V.)	25.01%	22.49%	21.29%	0.23
1.3 Weighted Average Diameter	0.23	0.23	0.23	0.23
2. Fineness, g/km	53.01	54.69	52.52	53.40
3. Tensile				
3.1 Tensile Strength N/mm²	92.88	90.47	91.41	91.58
Coefficient of Variation(C.V.)	1.27%	1.41%	1.36%	0.01
3.2. Elongation, %	26.36	27.93	26.76	27.01
Coefficient of Variation(C.V.)	34%	28%	32%	0.32
3.3 Breaking Load N	3.60	3.74	3.62	3.65
Coefficient of Variation(C.V.)	33%	34%	34%	0.33
**. Weighted Average				
4.1 Weighted average Breaking Load N	3.61	3.92	3.64	3.72
4.2 Weighted Average Tensile Strength N/mm²	88.12	91.22	86.81	88.717

Appendix –A5

Results of quality-12 weeks retted husks

Summary Results of Coir Sample		Report No		Sample Values
Fiber Type: Bristle fiber/ 3 months				
				Results
Date	Sp. 1	Sp. 2	Sp. 3	Final Average
1. Dimension				
1.1 Average Length, mm	175.91	192.75	178.28	182.31
Coefficient of Variation(C.V.)	0.45	0.39	0.45	0.43
1.2 Average Diameter, mm	0.25	0.21	0.22	0.22
Coefficient of Variation(C.V.)	0.18	0.24	0.25	0.22
1.3 Weighted Average Diameter	0.26	0.22	0.22	0.23
2. Fineness g/km	61.86	60.88	61.08	64.58
3. Tensile				
3.1 Tensile Strength N/mm²	93.29	117.22	102.74	104.42
Coefficient of Variation(C.V.)	0.02	0.01	0.01	0.01
3.2. Elongation, %	31.13	32.28	30.79	31.40
Coefficient of Variation(C.V.)	0.27	0.24	0.19	0.25
3.3 Breaking Load N	4.48	3.90	3.78	4.05
Coefficient of Variation(C.V.)	0.38	0.30	0.26	0.33
**. Weighted Average				
4.1 Weighted average Breaking Load N	4.68	4.16	4.12	4.32
4.2 Weighted Average Tensile Strength N/mm ²	91.85	107.59	104.84	101.43

Appendix –A6 Results of quality-4 weeks retted husks after crushing

Summary Results of Coir Sample	Report No		Sample Values
Fiber Type: Bristle fiber/ crushed			
			Results
Date	Sp. 1	Sp. 2	Sp. 3
			Final Average
1. Dimension			
1.1 Average Length, mm	177.54	192.75	188.23
Coefficient of Variation(C.V.)	0.45	0.39	0.45
1.2 Average Diameter, mm	0.25	0.21	0.22
Coefficient of Variation(C.V.)	0.18	0.24	0.25
1.3 Weighted Average Diameter	0.26	0.22	0.22
2. Fineness g/km	61.80	70.88	61.08
 University of Moratuwa, Sri Lanka Electronic Theses & Dissertations www.lib.mrt.ac.lk			64.58
3. Tensile			
3.1 Tensile Strength N/mm²			
Coefficient of Variation(C.V.)	105.31	117.22	104.96
3.2. Elongation, %	0.02	0.01	0.01
Coefficient of Variation(C.V.)	31.13	32.28	30.79
3.3 Breaking Load N	0.27	0.24	0.19
Coefficient of Variation(C.V.)	4.48	4.01	4.21
**. Weighted Average	0.38	0.29	0.24
4.1 Weighted average Breaking Load N	4.68	4.16	4.12
4.2 Weighted Average Tensile Strength N/mm ²	91.85	107.59	104.84
			101.43