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APPENDIX

TABLE A.1

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 1).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	108.82	6.66	6.12
LOWER PUNCH PRESSURE	MNm^{-2}	105.30	6.56	6.23
WEIGHT	g	0.4035	0.0053	1.32
THICKNESS	mm	2.59	0.02	0.61
BREAKING LOAD	Kgf_{-2}	4.78	0.30	6.27
FRACTURE STRESS	MNm^{-2}	0.915	0.054	5.94
POROSITY		0.1420	0.0069	4.85
TABLET DENSITY	Kgm^{-3}	1252.7	10.1	0.80
RELATIVE DENSITY		0.8580	0.0069	0.80

TABLE A.2

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 2).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	145.85	8.21	5.63
LOWER PUNCH PRESSURE	MNm^{-2}	143.35	7.40	5.16
WEIGHT	g	0.3985	0.0048	1.21
THICKNESS	mm	2.51	0.02	0.87
BREAKING LOAD	Kgf_{-2}	5.43	0.32	5.83
FRACTURE STRESS	MNm^{-2}	1.078	0.060	5.57
POROSITY		0.1238	0.0052	4.16
TABLET DENSITY	Kgm^{-3}	1279.3	7.5	0.59
RELATIVE DENSITY		0.8762	0.0052	0.59

TABLE A.3

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 3).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	195.22	8.04	4.12
LOWER PUNCH PRESSURE	MNm^{-2}	188.52	7.81	4.14
WEIGHT	g	0.3915	0.0041	1.04
THICKNESS	mm	2.46	0.03	1.09
BREAKING LOAD	Kgf	5.52	0.30	5.43
FRACTURE STRESS	MNm^{-2}	1.121	0.057	5.11
POROSITY		0.1219	0.0069	5.67
TABLET DENSITY	Kgm^{-3}	1282.0	10.1	0.79
RELATIVE DENSITY		0.8781	0.0069	0.79

TABLE A.4

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 4).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	104.69	7.24	6.92
LOWER PUNCH PRESSURE	MNm^{-2}	103.36	6.45	6.24
WEIGHT	g	0.4032	0.0054	1.34
THICKNESS	mm	2.65	0.02	0.62
BREAKING LOAD	Kgf	2.08	0.18	8.63
FRACTURE STRESS	MNm^{-2}	0.389	0.032	8.21
POROSITY		0.1603	0.0077	4.82
TABLET DENSITY	Kgm^{-3}	1225.9	11.3	0.92
RELATIVE DENSITY		0.8397	0.0077	0.92

TABLE A.5

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 5).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	157.33	13.15	8.36
LOWER PUNCH PRESSURE	MNm^{-2}	154.49	11.62	7.52
WEIGHT	g	0.4071	0.0070	1.72
THICKNESS	mm	2.61	0.04	1.47
BREAKING LOAD	Kgf	2.82	0.24	8.40
FRACTURE STRESS	MNm^{-2}	0.537	0.040	7.44
POROSITY		0.1402	0.0045	3.23
TABLET DENSITY	Kgm^{-3}	1255.3	6.6	0.53
RELATIVE DENSITY		0.8598	0.0045	0.53

TABLE A.6

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 6).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	195.51	8.26	4.22
LOWER PUNCH PRESSURE	MNm^{-2}	194.95	7.58	3.89
WEIGHT	g	0.4048	0.0040	0.98
THICKNESS	mm	2.56	0.03	1.04
BREAKING LOAD	Kgf	2.93	0.24	8.29
FRACTURE STRESS	MNm^{-2}	0.568	0.048	8.49
POROSITY		0.1296	0.0044	3.41
TABLET DENSITY	Kgm^{-3}	1270.7	6.4	0.51
RELATIVE DENSITY		0.8704	0.0044	0.51

TABLE A.7

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 7).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	94.29	4.23	4.48
LOWER PUNCH PRESSURE	MNm^{-2}	92.22	3.82	4.15
WEIGHT	g	0.4009	0.0042	1.05
THICKNESS	mm	2.60	0.01	0.53
BREAKING LOAD	Kgf	3.55	0.18	5.02
FRACTURE STRESS	MNm^{-2}	0.678	0.032	4.79
POROSITY		0.1498	0.0058	3.86
TABLET DENSITY	Kgm^{-3}	1241.2	8.4	0.68
RELATIVE DENSITY		0.8502	0.0058	0.68

TABLE A.8

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 8).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	153.41	9.52	6.21
LOWER PUNCH PRESSURE	MNm^{-2}	149.39	8.92	5.97
WEIGHT	g	0.4027	0.0052	1.29
THICKNESS	mm	2.54	0.03	1.17
BREAKING LOAD	Kgf	4.22	0.20	4.77
FRACTURE STRESS	MNm^{-2}	0.826	0.040	4.84
POROSITY		0.1269	0.0049	3.87
TABLET DENSITY	Kgm^{-3}	1274.7	7.2	0.56
RELATIVE DENSITY		0.8731	0.0049	0.56

TABLE A.9

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 9).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	208.35	7.87	3.78
LOWER PUNCH PRESSURE	MNm^{-2}	207.59	7.17	3.45
WEIGHT	g	0.3949	0.0035	0.89
THICKNESS	mm	2.48	0.03	1.13
BREAKING LOAD	Kgf	4.26	0.26	6.10
FRACTURE STRESS	MNm^{-2}	0.849	0.055	6.47
POROSITY		0.1232	0.0060	4.85
TABLET DENSITY	Kgm^{-3}	1280.1	8.7	0.68
RELATIVE DENSITY		0.8768	0.0060	0.68

TABLE A.10

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 10).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	102.52	5.79	5.64
LOWER PUNCH PRESSURE	MNm^{-2}	98.17	5.96	6.07
WEIGHT	g	0.3963	0.0051	1.27
THICKNESS	mm	2.63	0.02	0.60
BREAKING LOAD	Kgf	1.48	0.16	11.04
FRACTURE STRESS	MNm^{-2}	0.279	0.030	10.67
POROSITY		0.1706	0.0071	4.13
TABLET DENSITY	Kgm^{-3}	1210.9	10.3	0.85
RELATIVE DENSITY		0.8294	0.0071	0.85

TABLE A.11

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 11).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	156.93	10.43	6.65
LOWER PUNCH PRESSURE	MNm^{-2}	152.81	9.77	6.39
WEIGHT	g	0.3944	0.0057	1.45
THICKNESS	mm	2.53	0.03	1.26
BREAKING LOAD	Kgf_{-2}	2.12	0.12	5.77
FRACTURE STRESS	MNm^{-2}	0.416	0.021	4.95
POROSITY		0.1404	0.0043	3.09
TABLET DENSITY	Kgm^{-3}	1255.0	6.3	0.50
RELATIVE DENSITY		0.8596	0.0043	0.50

TABLE A.12

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 12).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	197.81	9.17	4.64
LOWER PUNCH PRESSURE	MNm^{-2}	190.53	9.30	4.88
WEIGHT	g	0.3972	0.0047	1.19
THICKNESS	mm	2.54	0.03	1.22
BREAKING LOAD	Kgf_{-2}	2.19	0.14	6.47
FRACTURE STRESS	MNm^{-2}	0.430	0.027	6.18
POROSITY		0.1374	0.0051	3.70
TABLET DENSITY	Kgm^{-3}	1259.4	7.4	0.59
RELATIVE DENSITY		0.8626	0.0051	0.59

TABLE A.13

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 13).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	98.44	11.80	11.99
LOWER PUNCH PRESSURE	MNm^{-2}	93.12	11.35	12.19
WEIGHT	g	0.4211	0.0117	2.77
THICKNESS	mm	2.74	0.03	0.95
BREAKING LOAD	Kgf	6.46	1.15	17.85
FRACTURE STRESS	MNm^{-2}	1.169	0.198	16.95
POROSITY		0.1538	0.0159	10.37
TABLET DENSITY	Kgm^{-3}	1235.5	23.3	1.88
RELATIVE DENSITY		0.8462	0.0159	1.88

TABLE A.14

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 14).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	153.21	49.08	32.03
LOWER PUNCH PRESSURE	MNm^{-2}	145.36	44.43	30.57
WEIGHT	g	0.3961	0.0348	8.79
THICKNESS	mm	2.54	0.14	5.38
BREAKING LOAD	Kgf	7.07	2.44	34.50
FRACTURE STRESS	MNm^{-2}	1.377	0.435	31.60
POROSITY		0.1417	0.0375	26.47
TABLET DENSITY	Kgm^{-3}	1253.2	54.8	4.37
RELATIVE DENSITY		0.8583	0.0375	4.37

TABLE A.15

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 15).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	192.16	83.31	43.36
LOWER PUNCH PRESSURE	MNm^{-2}	183.70	72.94	39.70
WEIGHT	g	0.4108	0.0443	10.77
THICKNESS	mm	2.61	0.23	8.80
BREAKING LOAD	Kgf	7.98	1.54	19.26
FRACTURE STRESS	MNm^{-2}	1.496	0.186	12.45
POROSITY		0.1328	0.0231	17.40
TABLET DENSITY	Kgm^{-3}	1266.1	33.7	2.67
RELATIVE DENSITY		0.8672	0.0231	2.67

TABLE A.16

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 16).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	111.21	31.32	28.17
LOWER PUNCH PRESSURE	MNm^{-2}	108.37	27.59	25.46
WEIGHT	g	0.4845	0.0286	5.90
THICKNESS	mm	3.17	0.07	2.14
BREAKING LOAD	Kgf	4.37	1.67	38.27
FRACTURE STRESS	MNm^{-2}	0.676	0.246	36.36
POROSITY		0.1581	0.0328	20.74
TABLET DENSITY	Kgm^{-3}	1229.2	47.9	3.89
RELATIVE DENSITY		0.8419	0.0328	3.89

TABLE A.17

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 17).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	135.95	23.57	17.33
LOWER PUNCH PRESSURE	MNm^{-2}	134.41	20.61	15.33
WEIGHT	g	0.5053	0.0160	3.17
THICKNESS	mm	3.22	0.05	1.65
BREAKING LOAD	Kgf	5.34	0.96	18.04
FRACTURE STRESS	MNm^{-2}	0.825	0.137	16.58
POROSITY		0.1349	0.0147	10.87
TABLET DENSITY	Kgm^{-3}	1263.1	21.4	1.69
RELATIVE DENSITY		0.8651	0.0147	1.69

TABLE A.18

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 18).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	177.42	39.53	22.28
LOWER PUNCH PRESSURE	MNm^{-2}	171.98	33.60	19.54
WEIGHT	g	0.4930	0.0219	4.45
THICKNESS	mm	3.10	0.09	2.92
BREAKING LOAD	Kgf	6.21	0.80	12.84
FRACTURE STRESS	MNm^{-2}	0.983	0.107	10.93
POROSITY		0.1229	0.0147	11.92
TABLET DENSITY	Kgm^{-3}	1280.6	21.4	1.67
RELATIVE DENSITY		0.8771	0.0147	1.67

TABLE A.19

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 19).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	90.09	18.24	20.24
LOWER PUNCH PRESSURE	MNm^{-2}	84.84	19.26	22.70
WEIGHT	g	0.4232	0.0213	5.03
THICKNESS	mm	2.81	0.04	1.57
BREAKING LOAD	Kgf	5.22	1.35	25.94
FRACTURE STRESS	MNm^{-2}	0.919	0.227	24.72
POROSITY		0.1718	0.0295	17.15
TABLET DENSITY	Kgm^{-3}	1209.2	43.0	3.56
RELATIVE DENSITY		0.8282	0.0295	3.56

TABLE A.20

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 20).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	139.51	55.01	39.43
LOWER PUNCH PRESSURE	MNm^{-2}	134.32	52.40	39.09
WEIGHT	g	0.3978	0.0390	9.79
THICKNESS	mm	2.58	0.16	6.32
BREAKING LOAD	Kgf	5.81	1.95	33.60
FRACTURE STRESS	MNm^{-2}	1.113	0.333	29.88
POROSITY		0.1521	0.0356	23.41
TABLET DENSITY	Kgm^{-3}	1237.9	52.0	4.20
RELATIVE DENSITY		0.8479	0.0356	4.20

TABLE A.21

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 21).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	214.94	71.35	33.20
LOWER PUNCH PRESSURE	MNm^{-2}	201.27	63.64	31.62
WEIGHT	g	0.3938	0.0369	9.37
THICKNESS	mm	2.49	0.21	8.34
BREAKING LOAD	Kgf	6.94	1.37	19.76
FRACTURE STRESS	MNm^{-2}	1.369	0.175	12.77
POROSITY		0.1295	0.0138	10.65
TABLET DENSITY	Kgm^{-3}	1270.9	20.1	1.58
RELATIVE DENSITY		0.8705	0.0138	1.58

TABLE A.22

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 22).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	88.56	17.26	19.49
LOWER PUNCH PRESSURE	MNm^{-2}	83.87	16.98	20.24
WEIGHT	g	0.4328	0.0191	4.41
THICKNESS	mm	2.94	0.05	1.69
BREAKING LOAD	Kgf	2.24	0.64	28.53
FRACTURE STRESS	MNm^{-2}	0.378	0.102	26.97
POROSITY		0.1886	0.0230	12.19
TABLET DENSITY	Kgm^{-3}	1184.6	33.6	2.83
RELATIVE DENSITY		0.8114	0.0230	2.83

TABLE A.23

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 23).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	129.21	16.43	12.72
LOWER PUNCH PRESSURE	MNm^{-2}	125.94	14.47	11.49
WEIGHT	g	0.4544	0.0110	2.41
THICKNESS	mm	2.95	0.05	1.59
BREAKING LOAD	Kgf_{-2}	3.82	0.40	10.58
FRACTURE STRESS	MNm^{-2}	0.640	0.062	9.63
POROSITY		0.1501	0.0084	5.62
TABLET DENSITY	Kgm^{-3}	1240.8	12.3	0.99
RELATIVE DENSITY		0.8499	0.0084	0.99

TABLE A.24

Measurements Derived from the Manufacture of Paracetamol Tablets (Batch 24).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION (%)
UPPER PUNCH PRESSURE	MNm^{-2}	189.58	29.04	15.32
LOWER PUNCH PRESSURE	MNm^{-2}	175.50	24.22	13.80
WEIGHT	g	0.4459	0.0149	3.35
THICKNESS	mm	2.85	0.08	2.65
BREAKING LOAD	Kgf_{-2}	4.02	0.58	14.42
FRACTURE STRESS	MNm^{-2}	0.701	0.089	12.69
POROSITY		0.1376	0.0084	6.12
TABLET DENSITY	Kgm^{-3}	1259.0	12.3	0.98
RELATIVE DENSITY		0.8624	0.0084	0.98

TABLE A.25

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 1).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	99.37	9.99	10.05
LOWER PUNCH PRESSURE	MNm^{-2}	94.02	9.88	10.51
WEIGHT	g	0.4022	0.0095	2.37
THICKNESS	mm	2.57	0.01	0.57
BREAKING LOAD	Kgf_{-2}	4.92	0.46	9.31
FRACTURE STRESS	MNm^{-2}	0.950	0.086	9.04
POROSITY		0.1362	0.0169	12.44
TABLET DENSITY	Kgm^{-3}	1261.2	24.7	1.96
RELATIVE DENSITY		0.8638	0.0169	1.96

TABLE A.26

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 2).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	155.93	7.55	4.84
LOWER PUNCH PRESSURE	MNm^{-2}	148.51	7.52	5.07
WEIGHT	g	0.4084	0.0040	0.97
THICKNESS	mm	2.50	0.02	0.95
BREAKING LOAD	Kgf_{-2}	5.66	0.16	2.74
FRACTURE STRESS	MNm^{-2}	1.128	0.039	3.43
POROSITY		0.0999	0.0040	3.99
TABLET DENSITY	Kgm^{-3}	1314.1	5.8	0.44
RELATIVE DENSITY		0.9001	0.0040	0.44

TABLE A.27
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 3).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	226.09	8.13	3.60
LOWER PUNCH PRESSURE	MNm^{-2}	215.20	7.47	3.47
WEIGHT	g	0.3796	0.0037	0.97
THICKNESS	mm	2.31	0.02	1.01
BREAKING LOAD	Kgf_{-2}	5.78	0.40	6.88
FRACTURE STRESS	MNm^{-2}	1.244	0.085	6.87
POROSITY		0.0962	0.0063	6.54
TABLET DENSITY	Kgm^{-3}	1319.6	9.2	0.70
RELATIVE DENSITY		0.9038	0.0063	0.70

TABLE A.28
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 4).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	104.37	6.06	5.81
LOWER PUNCH PRESSURE	MNm^{-2}	97.97	5.71	5.83
WEIGHT	g	0.4080	0.0051	1.25
THICKNESS	mm	2.62	0.02	0.76
BREAKING LOAD	Kgf_{-2}	3.64	0.27	7.39
FRACTURE STRESS	MNm^{-2}	0.688	0.049	7.07
POROSITY		0.1431	0.0069	4.83
TABLET DENSITY	Kgm^{-3}	1251.1	10.1	0.81
RELATIVE DENSITY		0.8570	0.0069	0.81

TABLE A.29

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 5).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	168.35	8.93	5.30
LOWER PUNCH PRESSURE	MNm^{-2}	157.72	8.15	5.16
WEIGHT	g	0.3991	0.0045	1.13
THICKNESS	mm	2.49	0.02	1.00
BREAKING LOAD	Kgf	4.25	0.21	4.84
FRACTURE STRESS	MNm^{-2}	0.850	0.043	5.01
POROSITY		0.1181	0.0044	3.69
TABLET DENSITY	Kgm^{-3}	1287.5	6.4	0.49
RELATIVE DENSITY		0.8819	0.0044	0.49

TABLE A.30

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 6).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	181.83	16.22	8.92
LOWER PUNCH PRESSURE	MNm^{-2}	169.29	15.45	9.12
WEIGHT	g	0.3921	0.0128	3.26
THICKNESS	mm	2.45	0.07	2.77
BREAKING LOAD	Kgf	4.77	0.38	8.01
FRACTURE STRESS	MNm^{-2}	0.965	0.067	6.98
POROSITY		0.1165	0.0063	5.44
TABLET DENSITY	Kgm^{-3}	1289.9	9.3	0.72
RELATIVE DENSITY		0.8835	0.0063	0.72

TABLE A.31

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 7).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	109.31	6.27	5.73
LOWER PUNCH PRESSURE	MNm^{-2}	105.45	6.25	5.92
WEIGHT	g	0.4093	0.0049	1.19
THICKNESS	mm	2.58	0.01	0.48
BREAKING LOAD	Kgf	4.24	0.24	5.63
FRACTURE STRESS	MNm^{-2}	0.815	0.044	5.42
POROSITY		0.1264	0.0067	5.30
TABLET DENSITY	Kgm^{-3}	1275.5	9.8	0.77
RELATIVE DENSITY		0.8736	0.0067	0.77

TABLE A.32

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 8).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	162.91	8.46	5.20
LOWER PUNCH PRESSURE	MNm^{-2}	156.48	7.76	4.96
WEIGHT	g	0.4009	0.0044	1.09
THICKNESS	mm	2.48	0.02	0.98
BREAKING LOAD	Kgf	4.52	0.39	8.72
FRACTURE STRESS	MNm^{-2}	0.905	0.077	8.53
POROSITY		0.1083	0.0054	4.97
TABLET DENSITY	Kgm^{-3}	1301.8	7.9	0.60
RELATIVE DENSITY		0.8917	0.0054	0.60

TABLE A.33
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 9).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	213.54	10.20	4.78
LOWER PUNCH PRESSURE	MNm^{-2}	200.81	9.30	4.63
WEIGHT	g	0.4015	0.0045	1.13
THICKNESS	mm	2.47	0.03	1.12
BREAKING LOAD	Kgf_{-2}	4.80	0.25	5.30
FRACTURE STRESS	MNm^{-2}	0.967	0.055	5.72
POROSITY		0.1027	0.0039	3.84
TABLET DENSITY	Kgm^{-3}	1310.1	5.8	0.44
RELATIVE DENSITY		0.8973	0.0039	0.44

TABLE A.34
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 10).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	93.65	6.94	7.41
LOWER PUNCH PRESSURE	MNm^{-2}	87.59	7.30	8.33
WEIGHT	g	0.3921	0.0069	1.77
THICKNESS	mm	2.55	0.02	0.77
BREAKING LOAD	Kgf_{-2}	2.42	0.38	15.74
FRACTURE STRESS	MNm^{-2}	0.470	0.070	14.98
POROSITY		0.1537	0.0098	6.38
TABLET DENSITY	Kgm^{-3}	1235.6	14.3	1.16
RELATIVE DENSITY		0.8463	0.0098	1.16

TABLE A.35

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 11).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	166.00	8.95	5.39
LOWER PUNCH PRESSURE	MNm^{-2}	157.43	8.67	5.51
WEIGHT	g	0.4044	0.0047	1.17
THICKNESS	mm	2.52	0.02	0.92
BREAKING LOAD	Kgf	3.23	0.24	7.54
FRACTURE STRESS	MNm^{-2}	0.634	0.047	7.41
POROSITY		0.1178	0.0052	4.42
TABLET DENSITY	Kgm^{-3}	1288.1	7.6	0.59
RELATIVE DENSITY		0.8822	0.0052	0.59

TABLE A.36

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 12).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	193.18	14.65	7.59
LOWER PUNCH PRESSURE	MNm^{-2}	184.11	13.17	7.16
WEIGHT	g	0.3970	0.0066	1.67
THICKNESS	mm	2.47	0.03	1.40
BREAKING LOAD	Kgf	3.54	0.20	5.68
FRACTURE STRESS	MNm^{-2}	0.715	0.044	6.16
POROSITY		0.1137	0.0054	4.77
TABLET DENSITY	Kgm^{-3}	1294.1	7.9	0.61
RELATIVE DENSITY		0.8863	0.0054	0.61

TABLE A.37
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 13).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	103.60	3.93	3.79
LOWER PUNCH PRESSURE	MNm^{-2}	102.68	4.55	4.43
WEIGHT	g	0.3985	0.0033	0.83
THICKNESS	mm	2.52	0.01	0.38
BREAKING LOAD	Kgf	4.64	0.35	7.55
FRACTURE STRESS	MNm^{-2}	0.916	0.068	7.45
POROSITY		0.1273	0.0073	5.76
TABLET DENSITY	Kgm^{-3}	1274.1	10.7	0.84
RELATIVE DENSITY		0.8727	0.0073	0.84

TABLE A.38
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 14).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	159.19	8.85	5.56
LOWER PUNCH PRESSURE	MNm^{-2}	148.29	8.51	5.74
WEIGHT	g	0.4027	0.0048	1.20
THICKNESS	mm	2.46	0.03	1.10
BREAKING LOAD	Kgf	6.16	0.24	3.86
FRACTURE STRESS	MNm^{-2}	1.247	0.050	4.04
POROSITY		0.0989	0.0063	6.35
TABLET DENSITY	Kgm^{-3}	1315.6	9.2	0.70
RELATIVE DENSITY		0.9011	0.0063	0.70

TABLE A.39
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 15).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	199.51	9.82	4.92
LOWER PUNCH PRESSURE	MNm^{-2}	191.68	8.54	4.46
WEIGHT	g	0.4028	0.0044	1.09
THICKNESS	mm	2.46	0.03	1.16
BREAKING LOAD	Kgf	5.68	0.39	6.84
FRACTURE STRESS	MNm^{-2}	1.146	0.085	7.39
POROSITY		0.0983	0.0066	6.66
TABLET DENSITY	Kgm^{-3}	1316.4	9.6	0.72
RELATIVE DENSITY		0.9017	0.0066	0.72

TABLE A.40
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 16).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	105.78	5.11	4.83
LOWER PUNCH PRESSURE	MNm^{-2}	99.82	4.81	4.81
WEIGHT	g	0.4013	0.0040	1.00
THICKNESS	mm	2.58	0.02	0.70
BREAKING LOAD	Kgf	3.00	0.27	9.01
FRACTURE STRESS	MNm^{-2}	0.577	0.050	8.65
POROSITY		0.1421	0.0056	3.94
TABLET DENSITY	Kgm^{-3}	1252.5	8.2	0.65
RELATIVE DENSITY		0.8579	0.0056	0.65

TABLE A.41
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 17).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	140.11	5.99	4.28
LOWER PUNCH PRESSURE	MNm^{-2}	131.29	5.94	4.53
WEIGHT	g	0.3952	0.0037	0.93
THICKNESS	mm	2.48	0.02	0.65
BREAKING LOAD	Kgf_{-2}	4.23	0.33	7.82
FRACTURE STRESS	MNm^{-2}	0.844	0.066	7.80
POROSITY		0.1234	0.0051	4.14
TABLET DENSITY	Kgm^{-3}	1279.8	7.5	0.58
RELATIVE DENSITY		0.8766	0.0051	0.58

TABLE A.42
Measurements Derived from the Manufacture of Aspirin Tablets (Batch 18).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	195.62	9.44	4.83
LOWER PUNCH PRESSURE	MNm^{-2}	191.33	8.57	4.48
WEIGHT	g	0.4065	0.0044	1.08
THICKNESS	mm	2.52	0.03	1.07
BREAKING LOAD	Kgf_{-2}	3.73	0.31	8.35
FRACTURE STRESS	MNm^{-2}	0.735	0.064	8.67
POROSITY		0.1116	0.0049	4.35
TABLET DENSITY	Kgm^{-3}	1297.1	7.1	0.55
RELATIVE DENSITY		0.8884	0.0049	0.55

TABLE A.43

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 19).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	107.78	6.92	6.42
LOWER PUNCH PRESSURE	MNm^{-2}	101.68	6.05	5.95
WEIGHT	g	0.4060	0.0051	1.26
THICKNESS	mm	2.57	0.01	0.49
BREAKING LOAD	Kgf	4.43	0.28	6.21
FRACTURE STRESS	MNm^{-2}	0.857	0.053	6.21
POROSITY		0.1284	0.0076	5.92
TABLET DENSITY	Kgm^{-3}	1272.6	11.1	0.87
RELATIVE DENSITY		0.8716	0.0076	0.87

TABLE A.44

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 20).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	156.40	10.78	6.89
LOWER PUNCH PRESSURE	MNm^{-2}	151.54	10.27	6.77
WEIGHT	g	0.3785	0.0057	1.51
THICKNESS	mm	2.34	0.03	1.24
BREAKING LOAD	Kgf	4.27	0.24	5.71
FRACTURE STRESS	MNm^{-2}	0.903	0.053	5.91
POROSITY		0.1105	0.0056	5.03
TABLET DENSITY	Kgm^{-3}	1298.7	8.1	0.62
RELATIVE DENSITY		0.8895	0.0056	0.62

TABLE A.45

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 21).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	170.82	8.78	5.14
LOWER PUNCH PRESSURE	MNm^{-2}	163.80	7.73	4.72
WEIGHT	g	0.4034	0.0043	1.07
THICKNESS	mm	2.48	0.02	0.87
BREAKING LOAD	Kgf	4.41	0.25	5.76
FRACTURE STRESS	MNm^{-2}	0.882	0.053	5.97
POROSITY		0.1053	0.0048	4.56
TABLET DENSITY	Kgm^{-3}	1306.3	7.0	0.54
RELATIVE DENSITY		0.8947	0.0048	0.54

TABLE A.46

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 22).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	97.48	4.55	4.67
LOWER PUNCH PRESSURE	MNm^{-2}	93.91	4.64	4.94
WEIGHT	g	0.4005	0.0044	1.09
THICKNESS	mm	2.62	0.02	0.68
BREAKING LOAD	Kgf	2.33	0.21	8.84
FRACTURE STRESS	MNm^{-2}	0.441	0.039	8.76
POROSITY		0.1570	0.0063	4.03
TABLET DENSITY	Kgm^{-3}	1230.8	9.2	0.75
RELATIVE DENSITY		0.8430	0.0063	0.75

TABLE A.47

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 23).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	161.34	10.12	6.27
LOWER PUNCH PRESSURE	MNm^{-2}	160.95	10.32	6.41
WEIGHT	g	0.4080	0.0056	1.38
THICKNESS	mm	2.52	0.02	0.97
BREAKING LOAD	Kgf	3.75	0.45	11.98
FRACTURE STRESS	MNm^{-2}	0.737	0.084	11.45
POROSITY		0.1067	0.0086	8.05
TABLET DENSITY	Kgm^{-3}	1304.2	12.5	0.96
RELATIVE DENSITY		0.8933	0.0086	0.96

TABLE A.48

Measurements Derived from the Manufacture of Aspirin Tablets (Batch 24).

		MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION
UPPER PUNCH PRESSURE	MNm^{-2}	217.28	13.40	6.17
LOWER PUNCH PRESSURE	MNm^{-2}	217.04	11.97	5.52
WEIGHT	g	0.4081	0.0060	1.48
THICKNESS	mm	2.54	0.04	1.49
BREAKING LOAD	Kgf	3.44	0.30	8.85
FRACTURE STRESS	MNm^{-2}	0.668	0.060	8.91
POROSITY		0.1141	0.0054	4.71
TABLET DENSITY	Kgm^{-3}	1293.4	7.8	0.61
RELATIVE DENSITY		0.8859	0.0054	0.61