Table 3. Hygroscopic Regain of Leather and Rubber[a]

The Normal Moisture Content Expressed in Per Cent of Dry Weight at Various Conditions of Relatively Humidity. All Observations Taken at Approximately 75 F

Per Cent Relative Humidity	Leather (Sole, Oak Tanned)	Sheepskin	Gold Beater Skin	Rubber Latex Dipped Cord	Reclaimed Rubber	Smoked Crepe Sheet Rubber
5	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....
15	.....	.....	.....	.....	.....	.....
20	12.00	8.50	10.75	2.55	0.85	0.35
25	12.80	10.00	11.30	2.95	0.90	0.40
30	13.75	11.40	11.75	3.20	1.00	0.50
35	14.00	11.85	11.95	3.40	1.05	0.55
40	15.05	12.50	12.00	3.80	1.10	0.60
45	16.40	13.20	12.15	3.90	1.15	0.65
50	16.90	13.75	12.45	4.15	1.20	0.70
55	17.00	14.00	12.80	4.95	1.40	0.75
60	17.45	15.05	13.15	5.50	1.50	0.80
65	18.00	17.00	13.90	6.30	1.65	0.85
70	18.85	18.85	15.00	6.80	2.00	0.95
75	21.50	22.50	16.80	7.40	2.50	1.05
80	22.60	29.50	17.60	8.05	3.00	1.15
85	26.70	42.00	19.00	9.00	3.75	1.50
90	31.00	.....	21.80	11.50	4.00	2.00

[a]For Sources of Original Data, see *Drying and Processing of Materials by Means of Conditioned Air*, by D. C. Lindsay.

Table 4. Hygroscopic Regain of Some Common Organic Substances[a]

The Normal Moisture Content Expressed in Per Cent of Dry Weight at Various Conditions of Relative Humidity. All Observations Taken at Approximately 75 F

Per Cent Rel. Humidity	North Carolina Leaf Tobacco	Porto Rican Tobacco	Cigarette Tobacco (Fatima)	Sole Leather (Oak Tanned)	Cat Gut	Soap (Ivory)	Lumber[b]	Glue (Hide 1st Grade	News Print Paper	Writing Paper	Commercial Ledger Paper	Kraft Wrapping Paper
5	5.00	.....	5.00	.....	3.2	1.2	1.8	2.0	1.45	2.00	2.20	2.20
10	7.40	.....	6.70	8.75	4.9	2.4	3.0	3.35	2.05	3.00	3.25	3.25
15	9.00	.....	8.00	10.60	6.0	3.1	3.8	4.25	2.75	3.70	3.85	4.00
20	10.80	.....	9.00	11.50	7.0	3.9	4.4	4.95	3.20	4.30	4.25	4.70
25	12.30	.....	10.20	12.70	7.8	4.5	5.1	5.65	3.70	4.75	4.70	5.20
30	13.90	.....	11.00	13.60	8.6	5.25	6.0	6.00	4.05	5.25	5.00	5.70
35	15.10	.....	12.10	14.30	9.4	6.0	6.45	6.45	4.45	5.70	5.40	6.30
40	16.35	.....	13.20	14.90	10.1	6.75	7.6	6.95	4.75	6.15	5.60	6.65
45	18.15	.....	14.35	15.60	11.0	7.5	8.6	7.35	5.00	6.65	5.90	7.20
50	19.50	.....	15.95	16.10	12.01	8.4	9.3	7.80	5.40	7.20	6.20	7.70
55	21.40	.....	17.40	16.80	13.1	9.5	10.2	8.10	5.75	7.75	6.50	8.35
60	23.00	17.70	19.40	17.40	14.3	10.8	11.3	8.40	6.05	8.40	6.90	8.95
65	25.00	18.00	21.50	18.30	15.5	12.0	12.25	9.15	6.65	9.10	7.50	9.75
70	27.10	18.70	23.95	19.15	16.8	13.7	13.9	9.85	7.20	10.00	8.15	10.60
75	30.00	20.50	.....	20.90	18.0	15.35	15.7	10.20	8.00	10.90	9.00	11.50
80	33.40	23.20	.....	22.65	19.2	17.8	17.5	11.00	8.75	11.95	10.40	12.65
85	.....	28.50	.....	26.00	20.25	20.25	19.6	11.75	9.65	13.00	12.00	13.70
90	.....	37.00	.....	30.00	21.7	23.8	22.00	12.40	10.70	14.20	14.00	14.90

[a]For Sources of Original Data, see *Drying and Processing of Materials by Means of Conditioned Air*, by D. C. Lindsay.

[b]Lumber from all species has been found to have essentially the same Regain values at an given Relative Humidity. The rate of Regain or Evaporation for lumber varies according to the density of the species.

Table 5. Hygroscopic Regain of Various Fibrous Materials for Electrical Insulation[a]

The Normal Moisture Content Expressed in Per Cent of Dry Weight at Various Conditions of Relative Humidity. All Observations Taken at Approximately 75 F

Per Cent Relative Humidity	Silk	Manila Paper	Red Rope Paper	Press Board	Leatheroid Paper	Red Rope Paper Varnished	Empire Cloth	Asbestos Paper
5	1.80	1.80	1.10	1.15	1.15	0.50	0.45	0.30
10	2.90	2.70	1.95	2.00	2.00	0.80	0.70	0.45
15	4.20	3.50	2.60	2.90	2.90	1.00	0.80	0.60
20	4.80	4.15	3.05	3.40	3.40	1.40	1.10	0.85
25	5.90	5.00	3.75	3.90	3.90	2.00	1.40	1.00
30	6.40	6.10	4.15	4.40	4.40	2.10	1.50	1.10
35	6.80	6.65	4.80	5.00	5.00	2.55	1.95	1.20
40	7.10	6.95	5.10	5.90	5.85	3.00	2.20	1.30
45	7.70	7.10	6.00	6.50	6.40	3.20	2.45	1.50
50	8.10	7.55	6.75	6.70	6.50	3.40	2.60	1.60
55	8.80	8.00	7.00	7.00	6.60	3.90	3.00	1.80
60	9.20	8.80	7.20	7.55	6.90	4.15	3.15	1.95
65	10.00	9.50	7.70	8.50	8.00	4.50	3.60	2.00
70	11.10	10.90	8.20	9.00	8.35	5.05	3.90	2.05
75	12.00	11.80	8.90	9.50	9.00	6.30	4.10	2.40
80	13.00	12.90	10.60	10.90	10.10	6.60	5.05	2.60
85	15.00	14.80	12.30	11.90	11.70	7.50	6.40	3.10
90	18.00	17.40	14.60	13.40	13.40	8.75	7.35	4.00

[a]For Sources of Original Data, see *Drying and Processing of Materials by Means of Conditioned Air*, by D. C. Lindsay.

Table 6. Hygroscopic Regain of Cereal Foods[a]

The Normal Moisture Content Expressed in Per Cent of Dry Weight at Various Conditions of Relative Humidity. All Observations Taken at Approximately 75 F

Per Cent Relative Humidity	Macaroni	Flour (Patent)	Bread	Crackers
5	3.50	1.75	0.60	1.00
10	5.00	2.20	1.00	1.60
15	6.20	3.25	1.40	2.00
20	7.10	3.90	2.00	2.55
25	8.05	4.50	2.50	3.10
30	8.75	5.05	3.10	3.50
35	9.60	6.50	3.85	3.80
40	10.60	6.90	4.60	4.00
45	11.75	7.50	5.80	4.50
50	12.20	8.50	6.50	5.05
55	13.00	9.00	7.45	6.50
60	13.75	10.08	8.50	6.90
65	15.00	11.50	9.85	7.60
70	16.60	12.60	11.40	8.70
75	17.45	13.80	12.50	9.85
80	18.75	15.80	13.90	11.10
85	20.06	17.50	16.75	12.00
90	22.40	19.00	18.90	13.10

[a]For Sources of Original Data, see *Drying and Processing of Materials by Means of Conditioned Air*, by D. C. Lindsay.