



## Equivalent Weights In Paper

Commonly specified American paper weight is based on two measures:

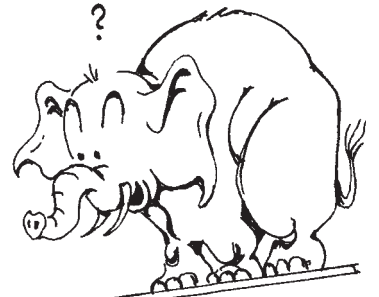
**1. BASIS WEIGHT:**

The nominal weight (in pounds) of one ream (500 sheets) of a particular paper in its normal manufacturing size (basis size).

**24# Bond**  
(17" x 22" sheet)



**50# Offset**  
(25" x 38" sheet)



**2. BASIS SIZE:** The normal size of each type of paper as determined by manufacturing tradition based on common usage.

Confusion arises because *different basis sizes are used to determine the basis weight of different grades of paper*. That makes direct comparison of weights between different grades difficult.

While we generally use paper in 8.5" x 11" finished sizes, it is the basis size that determines the basis weight. These are the most commonly used 'basis sizes':

Bond, Writing, Stationery, Ledger	17" x 22"
Cover	20" x 26"
Book, Text, Offset, Coated	25" x 38"
Index	25.5" x 30.5"
Vellum Bristol Cover	22.5" x 28.5"
Tag	24" x 36"

The chart on the reverse side shows the equivalent weights between the most common grades.

The most commonly used equivalents are between bond and offset, two papers with very similar applications. A flyer might be quoted as 20# Bond by one printer and 50# Offset by another. The chart will show that they are essentially the same weight and could be used interchangeably. However, a 24# Bond would be one step heavier than 50# Offset as illustrated by the mouse at the top of the page.

You can also use the chart to determine, for example, that 60# Cover would be equal to 47# Bond, or about twice the weight of a 24# Bond letterhead.

European and Asian papers which adhere to ISO (Metric) Standards are much easier to compare among themselves. They are all measured as grams per square meter (gm/m<sup>2</sup>). Thus any two papers can be compared directly to each other without reference to sheet or basis size.

BASIS SIZE*	Bond	Offset, Book & Text	Cover	Vellum Bristol		Tag	ISO- (Metric)
	17" x 22"	25" x 38"	20" x 26"	Cover	Index	24" x 36"	grams/meter <sup>2</sup>
Bond	<b>13</b>	33	18	22	27	30	49
Duplicator	<b>15</b>	38	21	25	31	35	56
Ledger	<b>16</b>	41	22	27	33	37	60
Mimeo & Writing	<b>20</b>	51	28	34	42	46	75
	<b>24</b>	61	33	41	50	55	90
	<b>28</b>	71	39	48	58	65	105
	<b>32</b>	81	45	55	67	74	120
	<b>36</b>	91	50	62	75	83	135
Book	16	<b>40</b>	22	27	33	36	59
Offset & Text	18	<b>45</b>	25	30	37	41	67
	20	<b>50</b>	27	34	41	45	74
	24	<b>60</b>	33	40	49	55	89
	28	<b>70</b>	38	47	57	64	104
	30	<b>75</b>	41	50	61	68	111
	31	<b>80</b>	44	54	65	73	118
	35	<b>90</b>	49	60	74	82	133
	39	<b>100</b>	55	67	82	91	148
	47	<b>120</b>	66	80	98	109	178
Cover	36	91	<b>50</b>	62	75	83	135
(Uncoated, Antique Finish)	43	110	<b>60</b>	74	90	100	162
	47	119	<b>65</b>	80	97	108	176
	58	146	<b>80</b>	99	120	133	216
	65	164	<b>90</b>	111	135	150	243
	72	183	<b>100</b>	124	150	166	270
Vellum Bristol	33	85	46	<b>57</b>	69	77	125
Cover	39	100	54	<b>67</b>	81	91	147
	47	120	65	<b>80</b>	98	109	175
Index	43	110	60	74	<b>90</b>	100	163
	53	135	74	91	<b>110</b>	122	199
	67	170	93	115	<b>140</b>	156	253
Tag	43	110	60	74	90	<b>100</b>	163
	54	137	75	93	113	<b>125</b>	203
	65	165	90	111	135	<b>150</b>	244
	76	192	105	130	158	<b>175</b>	285
	87	220	120	148	180	<b>200</b>	326

\* BASIS SIZE is the common manufactured sheet size in a particular grade of paper. The paper's weight (bold figures) is based on the weight in pounds of one ream (500 sheets) of that paper in its basis size. For example, "20# Bond" is based on the fact that 500 sheets of that grade (one ream) in 17" x 22" size (basis size) would weight 20 pounds. By quick calculation, you can conclude that 500 sheets of 20# Bond in 8.5" x 11" size (1/4 of 17" x 22" sheet) would weight 5 pounds.