

Paper Calculations

◆ **To calculate weight in KG/1000 sheets for specific gsm**

Example: 297 x 420mm - 120gsm
simply... shift decimal point in both dimensions and gsm 2 places to the left.
 $2.97 \times 4.20 \times 1.20 = 14.96 \text{ kg} / 1000 \text{ shts}$

◆ **To calculate gsm given kg/1000 sheets and size in mm**

a. weight x 1,000,000 divided by b. length (mm) x width (mm)

Example: a. $4.99 \text{ kg} \times 1,000,000.00 = 4990000.00$
b. $210. \times 297. = 62370.00$
 $4990000.00 \div 62370.00 = 80\text{gsm}$

◆ **Number of sheets per tonne given gsm & required size in mm**

a. 1,000,000 x 1,000,000 divided by b. gsm x length (mm) x width (mm)
shift decimal point 3 places to left and back 3 places to right for answer after calculation.

Example: a. $1,000.00 \times 1,000.00 = 1,000,000.00$
b. $80\text{gsm} \times 210. \times 297. = 4989.60$
 $1,000,000.00 \div 4989.60 = 200.410$
move 3 decimal points to right again for correct answer
= 200410 sheets

◆ **Linear metres in a reel given weight of reel in kg, width in mm**

a. weight (kg) x 1,000,000 divided by b. gsm x width (mm)

Example: a. $35 \times 1,000,000.00 = 35,000,000.00$
b. $80\text{gsm} \times 320. = 25600.00$
 $35,000,000.00 \div 25600.00 = 1367.18\text{m}$

◆ **Calculate price/m² given tonne price and gsm**

a. tonne price (\$) x gsm divided by 1,000,000

Example: $\$2537.00 \times 160\text{gsm} = 405920.00$
 $405920.00 \div 1,000,000.00 = .40 \text{ cent/m}^2$



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Metric Conversion Table

inches to millimetres - millimetres to inches

ins	0	1/16	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16
0	mm	2	3	5	6	8	10	11	13	14	16	17	19	21	22	24
1	25	27	29	30	32	33	35	37	38	40	41	43	44	46	48	49
2	51	52	54	56	57	59	60	62	64	65	67	68	70	71	73	75
3	76	78	79	81	83	84	86	87	89	90	92	94	95	97	98	100
4	102	103	105	106	108	110	111	113	114	116	117	119	121	122	124	125
5	127	129	130	132	133	135	137	138	140	141	143	144	146	148	149	151
6	152	154	155	157	159	160	162	164	165	167	168	170	171	173	175	176
7	178	179	181	183	184	186	187	189	191	192	194	195	197	198	200	202
8	203	205	206	208	210	211	213	214	215	216	217	219	221	222	225	227
9	229	230	232	233	235	237	238	240	241	243	244	246	248	249	251	252
10	254	256	257	259	260	262	264	265	267	268	270	271	273	275	276	278
11	279	281	282	284	286	287	289	291	292	294	295	297	298	300	302	303
12	305	306	308	310	311	313	314	316	318	319	321	322	324	325	327	329
13	330	332	333	335	337	338	340	341	343	344	346	348	349	351	352	354
14	356	357	359	360	362	364	365	367	368	370	371	373	375	376	378	379
15	381	383	384	385	387	389	391	392	394	395	397	398	400	402	403	405
16	406	408	410	411	413	414	416	417	419	421	422	424	425	427	429	430
17	432	433	435	437	438	440	441	443	445	446	448	449	451	452	454	456
18	457	459	460	462	464	465	467	468	470	471	473	475	476	478	479	481
19	483	484	486	487	489	491	492	494	495	497	498	500	502	504	505	506
20	508	510	511	513	514	516	518	519	521	522	524	525	527	529	530	532
21	533	535	536	538	540	541	543	545	546	548	549	551	552	554	556	557
22	559	560	562	564	565	567	568	570	572	573	575	576	578	579	581	583
23	584	586	587	589	591	592	594	595	597	598	600	602	603	605	606	608
24	610	611	613	614	616	618	619	621	622	624	625	627	629	630	632	633
25	635	637	638	640	641	643	645	646	648	649	651	652	654	656	657	659
26	660	662	663	665	667	668	670	672	673	675	676	678	679	681	683	684
27	686	687	689	691	692	694	696	697	699	700	702	703	705	706	708	710
28	711	713	714	716	718	719	721	722	724	725	727	729	730	732	733	735
29	737	738	740	741	743	745	746	748	749	751	752	754	756	757	759	760
30	762	764	765	767	768	770	772	773	775	776	778	779	781	783	784	786
31	787	789	790	792	794	795	797	799	800	802	803	805	806	808	810	811
32	813	814	816	818	819	821	822	824	826	827	829	830	832	833	835	837
33	838	840	841	843	845	846	847	849	851	852	854	856	857	859	860	862
34	864	865	867	868	870	872	873	875	876	878	879	881	883	884	886	887
35	889	891	892	894	895	897	899	900	902	903	905	906	908	909	911	913
36	914	916	918	919	921	922	924	926	927	929	930	932	933	935	937	938
37	939	941	943	944	946	947	949	951	952	954	955	957	958	960	962	963
38	965	966	968	970	971	973	974	976	978	979	981	982	984	985	978	989
39	990	992	993	995	997	998	1000	1001	1003	1004	1006	1008	1009	1011	1012	1014
40	1016	1017	1019	1020	1022	1024	1025	1027	1028	1030	1032	1033	1035	1036	1038	1039
41	1041	1043	1044	1046	1047	1049	1051	1052	1054	1055	1057	1058	1060	1062	1063	1065
42	1066	1068	1070	1071	1073	1074	1076	1078	1079	1081	1082	1084	1085	1087	1089	1090
43	1092	1093	1095	1097	1098	1100	1101	1103	1105	1106	1108	1109	1111	1112	1114	1116
44	1117	1119	1120	1122	1124	1125	1127	1128	1130	1131	1133	1135	1136	1138	1139	1141
45	1143	1144	1146	1147	1149	1151	1152	1154	1155	1157	1158	1160	1162	1163	1165	1166
46	1168	1170	1171	1173	1174	1176	1177	1179	1181	1182	1184	1185	1187	1189	1190	1192
47	1194	1195	1197	1199	1200	1201	1203	1205	1207	1208	1210	1211	1213	1214	1216	1218
48	1219	1221	1222	1224	1226	1227	1229	1230	1232	1233	1235	1237	1238	1240	1241	1243
49	1245	1246	1248	1249	1251	1253	1254	1256	1257	1259	1260	1262	1264	1265	1267	1268
50	1270	1272	1273	1275	1276	1278	1280	1281	1283	1284	1286	1287	1289	1291	1292	1294

Thickness Conversion Chart

Mils	Microns
1	25.4
2	50.8
3	76.2
4	101.6
5	127.8
6	152.4
7	177.8
8	203.2
9	228.6
10	254.0
11	279.4
12	304.8
13	330.2
14	355.6
15	381.0
16	406.4
17	431.8
18	457.2
19	482.6
20	508.0
21	533.4
22	558.8
23	584.2
24	609.6
25	635.0

Metric to Inches

Millimetres	Decimal Inches
1mm	.03937
2mm	.07874
3mm	.11811
4mm	.15748
5mm	.19685
6mm	.23622
7mm	.27559
8mm	.31496
9mm	.35433
10mm	.39370
11mm	.43307
12mm	.47244
13mm	.51181
14mm	.55118
15mm	.59055
16mm	.62992
17mm	.66929
18mm	.70866
19mm	.74803
20mm	.78740
21mm	.82677
22mm	.88614
23mm	.90551
24mm	.94488
25mm	.98425

Converting Multipliers

$\frac{12 \text{ inches}}{1 \text{ foot}}$	$\frac{.03937 \text{ mils}}{1 \text{ micron}}$
$\frac{25.4\text{mm}}{1 \text{ inch}}$	$\frac{1000 \text{ microns}}{1 \text{ mm}}$
$\frac{.001 \text{ inches}}{1 \text{ mil}}$	$\frac{39.37 \text{ mils}}{1 \text{ mm}}$
$\frac{25.400 \text{ microns}}{1 \text{ inch}}$	$\frac{.0254\text{mm}}{1 \text{ mil}}$
$\frac{25.4 \text{ microns}}{1 \text{ mil}}$	$\frac{.0001\text{cm}}{1 \text{ micron}}$

Thickness Conversion Formulas

Inches x 0.0833	= Feet
Inches x 25.4	= mm
Inches x 25.400	= Microns
Mils x 25.4	= Microns
Mils x 0.001	= Inches
Microns x 0.03937	= Mils
Microns x 0.0001	= cm
mm x 1000	= Microns
mm x 39.37	= Mils
.0254 x Mils	= mm