

# WEIGHT OF WORKPIECES



Schmalz Inc.  
5200 Atlantic Avenue  
Raleigh, NC 27616  
Tel: (919) 713 0880 Fax: (919) 713 0883  
Internet: www.schmalz.com  
E-mail: info@schmalz.com

<b>Steel: density 490 lbs/ft<sup>3</sup></b>															
Format	Thickness														
	1/32 in.	1/16 in.	1/8 in.	3/16 in.	1/4 in.	5/16 in.	3/8 in.	7/16 in.	1/2 in.	9/16 in.	5/8 in.	11/16 in.	3/4 in.	7/8 in.	1 in.
4 x 4 feet	20 lbs.	41 lbs.	82 lbs.	123 lbs.	163 lbs.	204 lbs.	245 lbs.	286 lbs.	327 lbs.	368 lbs.	408 lbs.	449 lbs.	490 lbs.	572 lbs.	653 lbs.
4 x 8 feet	41 lbs.	82 lbs.	163 lbs.	245 lbs.	327 lbs.	408 lbs.	490 lbs.	572 lbs.	653 lbs.	735 lbs.	817 lbs.	898 lbs.	980 lbs.	1143 lbs.	1307 lbs.
4 x 10 feet	51 lbs.	102 lbs.	204 lbs.	306 lbs.	408 lbs.	510 lbs.	613 lbs.	715 lbs.	817 lbs.	919 lbs.	1021 lbs.	1123 lbs.	1225 lbs.	1429 lbs.	1633 lbs.
4 x 12 feet	61 lbs.	123 lbs.	245 lbs.	368 lbs.	490 lbs.	613 lbs.	735 lbs.	858 lbs.	980 lbs.	1103 lbs.	1225 lbs.	1348 lbs.	1470 lbs.	1715 lbs.	1960 lbs.
5 x 8 feet	51 lbs.	102 lbs.	204 lbs.	306 lbs.	408 lbs.	510 lbs.	613 lbs.	715 lbs.	817 lbs.	919 lbs.	1021 lbs.	1123 lbs.	1225 lbs.	1429 lbs.	1633 lbs.
5 x 10 feet	64 lbs.	128 lbs.	255 lbs.	383 lbs.	510 lbs.	638 lbs.	766 lbs.	893 lbs.	1021 lbs.	1148 lbs.	1276 lbs.	1404 lbs.	1531 lbs.	1786 lbs.	2042 lbs.
5 x 12 feet	77 lbs.	153 lbs.	306 lbs.	459 lbs.	613 lbs.	766 lbs.	919 lbs.	1072 lbs.	1225 lbs.	1378 lbs.	1531 lbs.	1684 lbs.	1838 lbs.	2144 lbs.	2450 lbs.
5 x 16 feet	102 lbs.	204 lbs.	408 lbs.	613 lbs.	817 lbs.	1021 lbs.	1225 lbs.	1429 lbs.	1633 lbs.	1838 lbs.	2042 lbs.	2246 lbs.	2450 lbs.	2858 lbs.	3267 lbs.
5 x 20 feet	128 lbs.	255 lbs.	510 lbs.	766 lbs.	1021 lbs.	1276 lbs.	1531 lbs.	1786 lbs.	2042 lbs.	2297 lbs.	2552 lbs.	2807 lbs.	3063 lbs.	3573 lbs.	4083 lbs.

<b>Aluminum: density 170 lbs/ft<sup>3</sup></b>															
Format	Thickness														
	1/32 in.	1/16 in.	1/8 in.	3/16 in.	1/4 in.	5/16 in.	3/8 in.	7/16 in.	1/2 in.	9/16 in.	5/8 in.	11/16 in.	3/4 in.	7/8 in.	1 in.
4 x 4 feet	7 lbs.	14 lbs.	28 lbs.	43 lbs.	57 lbs.	71 lbs.	85 lbs.	99 lbs.	113 lbs.	128 lbs.	142 lbs.	156 lbs.	170 lbs.	198 lbs.	227 lbs.
4 x 8 feet	14 lbs.	28 lbs.	57 lbs.	85 lbs.	113 lbs.	142 lbs.	170 lbs.	198 lbs.	227 lbs.	255 lbs.	283 lbs.	312 lbs.	340 lbs.	397 lbs.	453 lbs.
4 x 10 feet	18 lbs.	35 lbs.	71 lbs.	106 lbs.	142 lbs.	177 lbs.	213 lbs.	248 lbs.	283 lbs.	319 lbs.	354 lbs.	390 lbs.	425 lbs.	496 lbs.	567 lbs.
4 x 12 feet	21 lbs.	43 lbs.	85 lbs.	128 lbs.	170 lbs.	213 lbs.	255 lbs.	298 lbs.	340 lbs.	383 lbs.	425 lbs.	468 lbs.	510 lbs.	595 lbs.	680 lbs.
5 x 8 feet	18 lbs.	35 lbs.	71 lbs.	106 lbs.	142 lbs.	177 lbs.	213 lbs.	248 lbs.	283 lbs.	319 lbs.	354 lbs.	390 lbs.	425 lbs.	496 lbs.	567 lbs.
5 x 10 feet	22 lbs.	44 lbs.	89 lbs.	133 lbs.	177 lbs.	221 lbs.	266 lbs.	310 lbs.	354 lbs.	398 lbs.	443 lbs.	487 lbs.	531 lbs.	620 lbs.	708 lbs.
5 x 12 feet	27 lbs.	53 lbs.	106 lbs.	159 lbs.	213 lbs.	266 lbs.	319 lbs.	372 lbs.	425 lbs.	478 lbs.	531 lbs.	584 lbs.	638 lbs.	744 lbs.	850 lbs.
5 x 16 feet	35 lbs.	71 lbs.	142 lbs.	213 lbs.	283 lbs.	354 lbs.	425 lbs.	496 lbs.	567 lbs.	638 lbs.	708 lbs.	779 lbs.	850 lbs.	992 lbs.	1133 lbs.
5 x 20 feet	44 lbs.	89 lbs.	177 lbs.	266 lbs.	354 lbs.	443 lbs.	531 lbs.	620 lbs.	708 lbs.	797 lbs.	885 lbs.	974 lbs.	1063 lbs.	1240 lbs.	1417 lbs.

**Lead** Density: 700 lbs/ft<sup>3</sup>

**Bronze** Density: 550 lbs/ft<sup>3</sup>

**Brass** Density: 530 lbs/ft<sup>3</sup>

**Titanium** Density: 280 lbs/ft<sup>3</sup>

**Copper** Density: 550 lbs/ft<sup>3</sup>

<b>Barrel Cont.</b>	
Gasoline	Density: 45 lbs/ft <sup>3</sup>
Diesel	Density: 52 lbs/ft <sup>3</sup>
Heating oil	Density: 52 lbs/ft <sup>3</sup>
Grease	Density: 57 lbs/ft <sup>3</sup>
Water	Density: 62 lbs/ft <sup>3</sup>

**How to calculate the weight of your workpiece:**

<b>Weight = Length x Width x Height x Density</b>
<b>[lbs] = [ft] x [ft] x [ft] x [lbs/ft<sup>3</sup>]</b>

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5200 Atlantic Avenue  
Raleigh, NC 27616  
Tel: (919) 713 0880 Fax: (919) 713 0883  
Internet: www.schmalz.com  
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**Chip board: density 46 lbs/ft<sup>3</sup>**

Format	Thickness										
	1/4 in.	3/8 in.	1/2 in.	5/8 in.	3/4 in.	7/8 in.	1 in.	1 1/8 in.	1 1/4 in.	1 1/2 in.	2 in.
4 x 4 feet	15 lbs.	23 lbs.	31 lbs.	38 lbs.	46 lbs.	54 lbs.	61 lbs.	69 lbs.	77 lbs.	92 lbs.	123 lbs.
4 x 8 feet	31 lbs.	46 lbs.	61 lbs.	77 lbs.	92 lbs.	107 lbs.	123 lbs.	138 lbs.	153 lbs.	184 lbs.	245 lbs.
4 x 10 feet	38 lbs.	58 lbs.	77 lbs.	96 lbs.	115 lbs.	134 lbs.	153 lbs.	173 lbs.	192 lbs.	230 lbs.	307 lbs.
4 x 12 feet	46 lbs.	69 lbs.	92 lbs.	115 lbs.	138 lbs.	161 lbs.	184 lbs.	207 lbs.	230 lbs.	276 lbs.	368 lbs.
5 x 8 feet	38 lbs.	58 lbs.	77 lbs.	96 lbs.	115 lbs.	134 lbs.	153 lbs.	173 lbs.	192 lbs.	230 lbs.	307 lbs.
5 x 10 feet	48 lbs.	72 lbs.	96 lbs.	120 lbs.	144 lbs.	168 lbs.	192 lbs.	216 lbs.	240 lbs.	288 lbs.	383 lbs.
5 x 12 feet	58 lbs.	86 lbs.	115 lbs.	144 lbs.	173 lbs.	201 lbs.	230 lbs.	259 lbs.	288 lbs.	345 lbs.	460 lbs.
5 x 16 feet	77 lbs.	115 lbs.	153 lbs.	192 lbs.	230 lbs.	268 lbs.	307 lbs.	345 lbs.	383 lbs.	460 lbs.	613 lbs.
6 x 12 feet	69 lbs.	104 lbs.	138 lbs.	173 lbs.	207 lbs.	242 lbs.	276 lbs.	311 lbs.	345 lbs.	414 lbs.	552 lbs.
6 x 16 feet	92 lbs.	138 lbs.	184 lbs.	230 lbs.	276 lbs.	322 lbs.	368 lbs.	414 lbs.	460 lbs.	552 lbs.	736 lbs.

**MDF board: density 55 lbs/ft<sup>3</sup>**

Format	Thickness										
	1/4 in.	3/8 in.	1/2 in.	5/8 in.	3/4 in.	7/8 in.	1 in.	1 1/8 in.	1 1/4 in.	1 1/2 in.	2 in.
4 x 4 feet	18 lbs.	28 lbs.	37 lbs.	46 lbs.	55 lbs.	64 lbs.	73 lbs.	83 lbs.	92 lbs.	110 lbs.	147 lbs.
4 x 8 feet	37 lbs.	55 lbs.	73 lbs.	92 lbs.	110 lbs.	128 lbs.	147 lbs.	165 lbs.	183 lbs.	220 lbs.	293 lbs.
4 x 10 feet	46 lbs.	69 lbs.	92 lbs.	115 lbs.	138 lbs.	160 lbs.	183 lbs.	206 lbs.	229 lbs.	275 lbs.	367 lbs.
4 x 12 feet	55 lbs.	83 lbs.	110 lbs.	138 lbs.	165 lbs.	193 lbs.	220 lbs.	248 lbs.	275 lbs.	330 lbs.	440 lbs.
5 x 8 feet	46 lbs.	69 lbs.	92 lbs.	115 lbs.	138 lbs.	160 lbs.	183 lbs.	206 lbs.	229 lbs.	275 lbs.	367 lbs.
5 x 10 feet	57 lbs.	86 lbs.	115 lbs.	143 lbs.	172 lbs.	201 lbs.	229 lbs.	258 lbs.	286 lbs.	344 lbs.	458 lbs.
5 x 12 feet	69 lbs.	103 lbs.	138 lbs.	172 lbs.	206 lbs.	241 lbs.	275 lbs.	309 lbs.	344 lbs.	413 lbs.	550 lbs.
5 x 16 feet	92 lbs.	138 lbs.	183 lbs.	229 lbs.	275 lbs.	321 lbs.	367 lbs.	413 lbs.	458 lbs.	550 lbs.	733 lbs.
6 x 12 feet	83 lbs.	124 lbs.	165 lbs.	206 lbs.	248 lbs.	289 lbs.	330 lbs.	371 lbs.	413 lbs.	495 lbs.	660 lbs.
6 x 16 feet	110 lbs.	165 lbs.	220 lbs.	275 lbs.	330 lbs.	385 lbs.	440 lbs.	495 lbs.	550 lbs.	660 lbs.	880 lbs.

**Solid wood**

Maple	Density: 46 lbs/ft <sup>3</sup>
Birch	Density: 40 lbs/ft <sup>3</sup>
Beech	Density: 45 lbs/ft <sup>3</sup>
Oak	Density: 53 lbs/ft <sup>3</sup>
Alder	Density: 34 lbs/ft <sup>3</sup>
Ash	Density: 46 lbs/ft <sup>3</sup>
Spruce	Density: 28 lbs/ft <sup>3</sup>
Pine	Density: 46 lbs/ft <sup>3</sup>
Larche	Density: 46 lbs/ft <sup>3</sup>
Poplar	Density: 31 lbs/ft <sup>3</sup>
Teak	Density: 38 lbs/ft <sup>3</sup>

**Corian / Solid Surface: density 105 lbs/ft<sup>3</sup>**

Format	Thickness						
	1/4 in.	3/8 in.	1/2 in.	5/8 in.	3/4 in.	7/8 in.	1 in.
2 x 12 feet	53 lbs.	79 lbs.	105 lbs.	131 lbs.	158 lbs.	184 lbs.	210 lbs.
2.5 x 12 feet	66 lbs.	98 lbs.	131 lbs.	164 lbs.	197 lbs.	230 lbs.	263 lbs.
3 x 8 feet	53 lbs.	79 lbs.	105 lbs.	131 lbs.	158 lbs.	184 lbs.	210 lbs.
3 x 10 feet	66 lbs.	98 lbs.	131 lbs.	164 lbs.	197 lbs.	230 lbs.	263 lbs.
3 x 12 feet	79 lbs.	118 lbs.	158 lbs.	197 lbs.	236 lbs.	276 lbs.	315 lbs.
3.5 x 12 feet	92 lbs.	138 lbs.	184 lbs.	230 lbs.	276 lbs.	322 lbs.	368 lbs.
4 x 12 feet	105 lbs.	158 lbs.	210 lbs.	263 lbs.	315 lbs.	368 lbs.	420 lbs.

**Trespa / Phenolic Resin: density 91.5 lbs/ft<sup>3</sup>**

Thickness	1/4 in.	1/2 in.	5/8 in.	3/4 in.	1 in.
Weight	1.737 lbs/ft <sup>2</sup>	3.782 lbs/ft <sup>2</sup>	4.6 lbs/ft <sup>2</sup>	5.72 lbs/ft <sup>2</sup>	7.15 lbs/ft <sup>2</sup>

**Plywood** Density: 37 lbs/ft<sup>3</sup> to 50 lbs/ft<sup>3</sup>

**Wood core plywood** Density: 32 lbs/ft<sup>3</sup> to 40 lbs/ft<sup>3</sup>

**Glass** Density: 150 lbs/ft<sup>3</sup>

**Gypsum fibre** Density: 70 lbs/ft<sup>3</sup> to 80 lbs/ft<sup>3</sup>

**Gypsum** Density: 145 lbs/ft<sup>3</sup>

**Corian** Density: 105 lbs/ft<sup>3</sup>

**Plexiglas** Density: 75 lbs/ft<sup>3</sup>

**Concrete** Density: 145 lbs/ft<sup>3</sup>

**Natural stone** Density: 140 lbs/ft<sup>3</sup> to 175 lbs/ft<sup>3</sup>

**Clay** Density: 110 lbs/ft<sup>3</sup> to 130 lbs/ft<sup>3</sup>

**Paper** Density: 45 lbs/ft<sup>3</sup> to 70 lbs/ft<sup>3</sup>