

**technical
DATA**

Latrobe Plant
Electronics Division
Latrobe, Pennsylvania

CARBORUNDUM

100EB8 Issue 3
Sheet 1 of 2

KOVAR[®] ALLOY WEIGHT CONVERSION FACTORS

GENERAL

Density of Kovar[®] alloy is .302 lbs per cubic inch. When using weight tables for steel shapes multiply by factor of 1.065 to obtain equivalent weight in Kovar alloy.

EXAMPLE: From weight table for steel rod 1" dia. weight 2.670 lbs/ft. times 1.065 is 2.84 lbs/ft for Kovar alloy.

KOVAR[®] ALLOY STRIP

<u>STANDARD STOCK SIZES</u>		<u>LBS/FT (1)</u>	<u>LBS/FT(2)</u>
<u>THICKNESS (INCHES)</u>	<u>WIDTH (INCHES)</u>	<u>FOR STANDARD WIDTH</u>	<u>FOR SPECIAL 1" WIDTH</u>
.005	6-1/2	.117	.018
.010	6-1/2	.234	.036
.015	6-1/2	.355	.054
.020	6-1/2	.468	.072
.030	13	1.40	.108
.040	13	1.87	.144
.050	13	2.33	.179
.060	13	2.80	.216
.100	13	4.67	.358
.125	13	5.85	.450

NOTE: To find the weight of non-standard widths multiply the non-standard width by the weight of 1" width as shown in column (2) above.

Example: To find the weight of .010 x 3/4" (.750)
.036 x .750 is .027 lbs/ft.



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100EB8 Issue 3
Sheet 2 of 2

KOVAR® ALLOY SEAMLESS TUBING

FORMULA: $(O.D^2 \text{ minus } I.D^2)$ times 2.84 is weight in lbs/ft.

EXAMPLE: To find the weight of one foot tubing 1" O.D.
x .050" wall (.90 nominal I.D.) $(1 - .81)$ times
2.84 is .540 lbs/ft.

NOTE: Kovar® tubing is sold and measured by the foot.
The conversion factor obtained by the above
formula does not take tolerance into consider-
ation and is only an approximate figure.

KOVAR® ALLOY ROD & WIRE

FORMULA: Weight per foot is 2.84 times diameter squared.

EXAMPLE: To find weight of 2-1/4" diameter rod: 2.84
times $(2.250)^2$ is 14.3 per foot.

<u>DIAMETER</u> <u>(INCHES)</u>	<u>LBS/FT</u>	<u>DIAMETER</u> <u>(INCHES)</u>	<u>LBS/FT</u>	<u>DIAMETER</u> <u>(INCHES)</u>	<u>FT/LB</u>
.030	.0026	.500	.710	.005	14300
.035	.0035	.625	1.11	.010	3500
.040	.0045	.750	1.60	.013	2100
.050	.007	1.000	2.84	.015	1500
.060	.010	1.125	3.6	.018	1080
.070	.0138	1.250	4.5	.020	900
.080	.018	1.375	5.4	.025	580
.0938	.025	1.500	6.4	.030	400
.100	.028	1.625	7.5	.035	300
.125	.045	1.750	8.7	.040	225
.156	.069	2.000	11.4	.045	175
.1875	.100	2.125	12.9	.050	145
.250	.178	2.500	17.7	.060	100
.3125	.278	3.000	25.5	.080	55
.375	.400				