RWK/RWF/RWG RESISTANCE WIRE

Features & Benefits

- Same multi-stranded wire we used in high-quality heating element
- 500 ft (152 m) or 1000 ft (305 m) standard spool sizes
- Provides greater flexibility and durability than solid strand wires
- Flexible up to a 1/16 in (1.6 mm) radius

Polyimide Film Insulated Resistance Wire — RWK Series

Specifications

Maximum Exposure Temperature: 356°F (180°)

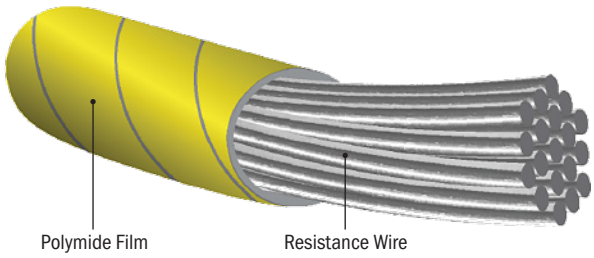
Insulation Type: 1 mil polyimide film with 50% overlap

Insulation Thickness: 2 mil

Dielectric Strength: Over 2000 volts (Suitable for use on Conductive Surfaces)

rated to 482°F (250°C), 600 VAC, AWM 5417

RoHS



RWK

Fiberglass Insulated Resistance Wire — RWF Series

Specifications

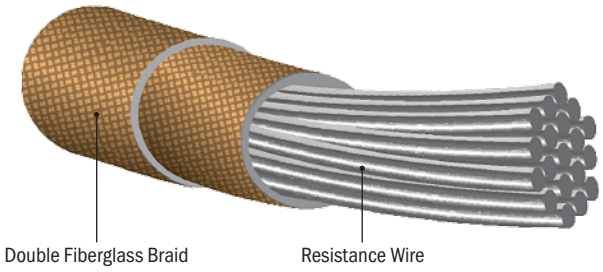
Maximum Exposure Temperature: 1100°F (593°C)

Insulation Type: Two layers of 8 mil diameter strands of fiberglass yarn

Dielectric Strength: Over 2000 volts (Not Suitable for use on Conductive Surfaces)

PTFE Optional Coating: Provides anti-fraying and abrasion resistance

RoHS



RWF

Grounded Resistance Wire — RWG Series

Specifications

Maximum Exposure Temperature: 356°F (180°C)

360° Grounded Braid: Wraps completely around heating element for maximum safety

Insulation Type: 1 mil polyimide film with 50% overlap

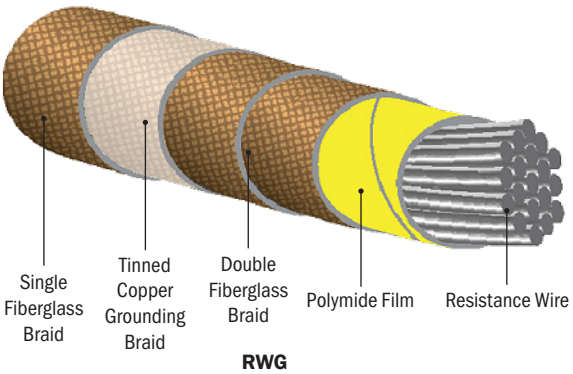
Insulation Thickness: 2 mil

Construction: Two layers of 8 mil diameter fiberglass braided over polyimide film

Dielectric Strength: Over 2000 volts (Suitable for use on Conductive Surfaces)

PTFE Optional Coating: Provides anti-fraying and abrasion resistance

RoHS



RWG

Ordering Information

When specifying resistance wire, it is important to consider all aspects of the application and wire. For example, if the application is on a conductive surface, wire type RWF should not be chosen. Also, if the application requires constant temperatures of 350°F (176°C), then alloy K should not be chosen. Call BriskHeat® or your local distributor for application assistance.

Part Number Guide

RWG	25	A	-	7.00	T	A

Resistance Wire Type:
RWK- Polyimide Film Insulated,
RWF- Fiberglass Insulated, RWG- Grounded

Number of Strands:
(see below tables)

Alloy Type:
(see below tables)

Resistance per Foot:
(see below tables)

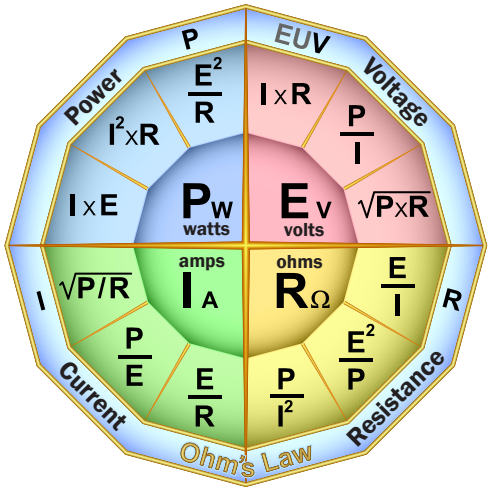
Optional Coating:
T- PTFE (RWF and RWG only), Blank - None

Spool Size:
A - 500 ft (152 m), B - 1000 ft (305 m)

Alloy Specifications

Alloy Type	Gauge/ Strand	Max Exposure Temperature	Ohms/FT/ Strand	Composition
A	43	1650°F (899°C)	175.00	71.75% Fe, 22% Cr, 5.75% Al, 0.5% Cu
B	41	1650°F (899°C)	115.31	71.75% Fe, 22% Cr, 5.75% Al, 0.5% Cu
C	40	1650°F (899°C)	88.18	71.75% Fe, 22% Cr, 5.75% Al, 0.5% Cu
D	40	1650°F (899°C)	70.24	60% Ni, 15% Cr, 25% Fe
E	39	1650°F (899°C)	55.10	60% Ni, 15% Cr, 25% Fe
F	37	1650°F (899°C)	33.33	60% Ni, 15% Cr, 25% Fe
G	37	1022°F (550°C)	14.52	55% Cu, 45% Ni
H	37	1000°F (538°C)	8.88	78% Cu, 22% Ni
I	37	797°F (425°C)	4.44	88% Cu, 12% Ni
K	36	300°F (149°C)	0.43	96% Cu (core), 4% Ni (cladding)

Ohm's Law



Resistance Per Foot

Number of Strands	Alloy Type									
	A	B	C	D	E	F	G	H	I	K
5	35.000	23.062	17.636	14.048	11.020	6.666	2.904	1.776	0.888	0.086
6	29.167	19.218	14.697	11.707	9.183	5.555	2.420	1.480	0.740	0.072
7	25.000	16.473	12.597	10.034	7.871	4.761	2.074	1.269	0.634	0.061
8	21.875	14.414	11.023	8.780	6.888	4.166	1.815	1.110	0.555	0.054
9	19.444	12.812	9.798	7.804	6.122	3.703	1.613	0.987	0.493	0.048
10	17.500	11.531	8.818	7.024	5.510	3.333	1.452	0.888	0.444	0.043
11	15.909	10.483	8.016	6.385	5.009	3.030	1.320	0.807	0.404	0.039
12	14.583	9.609	7.348	5.853	4.592	2.778	1.210	0.740	0.370	0.036
13	13.462	8.870	6.783	5.403	4.238	2.564	1.117	0.683	0.342	0.033
14	12.500	8.236	6.299	5.017	3.936	2.381	1.037	0.634	0.317	0.031
15	11.667	7.687	5.879	4.683	3.673	2.222	0.968	0.592	0.296	0.029
16	10.938	7.207	5.511	4.390	3.444	2.083	0.908	0.555	0.278	0.027
17	10.294	6.783	5.187	4.132	3.241	1.961	0.854	0.522	0.261	0.025
18	9.722	6.406	4.899	3.902	3.061	1.852	0.807	0.493	0.247	0.024
19	9.211	6.069	4.641	3.697	2.900	1.754	0.764	0.467	0.234	0.023
20	8.750	5.766	4.409	3.512	2.755	1.667	0.726	0.444	0.222	0.022
21	8.333	5.491	4.199	3.345	2.624	1.587	0.691	0.423	0.211	0.020
22	7.955	5.241	4.008	3.193	2.505	1.515	0.660	0.404	0.202	0.020
23	7.609	5.013	3.834	3.054	2.396	1.449	0.631	0.386	0.193	0.019
24	7.292	4.805	3.674	2.927	2.296	1.389	0.605	0.370	0.185	0.018
25	7.000	4.612	3.527	2.810	2.204	1.333	0.581	0.355	0.178	0.017
26	6.731	4.435	3.392	2.702	2.119	1.282	0.558	0.342	0.171	0.017
27	6.481	4.271	3.266	2.601	2.041	1.234	0.538	0.329	0.164	0.016
28	6.250	4.118	3.149	2.509	1.968	1.190	0.519	0.317	0.159	0.015
29	6.034	3.976	3.041	2.422	1.900	1.149	0.501	0.306	0.153	0.015
30	5.833	3.844	2.939	2.341	1.837	1.111	0.484	0.296	0.148	0.014

NOTE: Resistance tolerance is ±8%

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