



bercotherm[®] – bedra resistance wire
for low temperature applications

bedra
intelligent wires

Resistance wire

Perfection has been our commitment – since as early as 1889! With products made in Germany, Berkenhoff GmbH, operating under the umbrella brand bedra, is synonymous with high-tech precision wires for electronic components, spark erosion, welding and brazing as well as specialty applications. We are able to provide a range of more than 100 different alloys, all being produced in our own foundry. Of course, only virgin metals are used. The Berkenhoff quality management system is approved to DIN EN ISO 9001, our environmental management system to DIN EN ISO 14001. bedra pure tin coatings (Sn100) are RoHS compliant.

With **bercotherm®**, Berkenhoff GmbH has developed special resistance alloys. Applications are varied, as are the related temperature ranges. This makes it difficult to recommend an optimal material that can be used across all applications. Based on a thorough analysis of your needs we will provide a technically and economically optimal solution.

Optimizing costs by selecting intelligent alloys

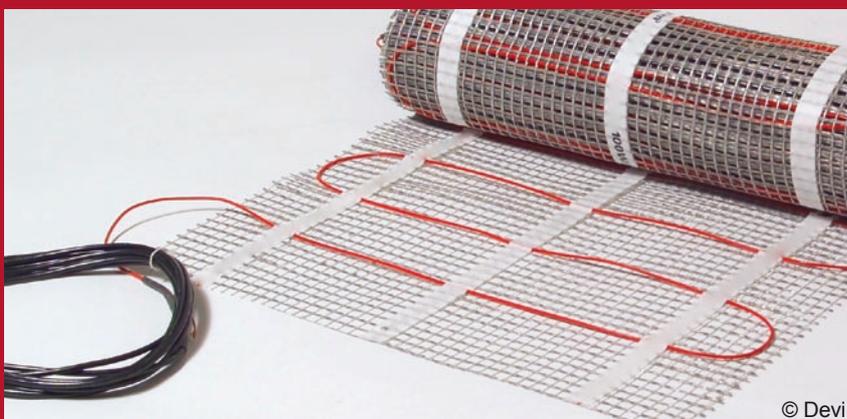
- Not all applications will require the use of expensive Cu-Ni alloys
- We offer alternative materials in nickel-free quality which may significantly reduce the overall price

Optimizing costs using higher conductivity

- An increase in conductivity will provide a result that a thinner wire diameter is sufficient
- Thinner **bercotherm®** wires have a lower weight per meter – allowing more meters of cable to be produced from one kilogram of wire

Optimizing costs using higher mechanical strength

- The range of bedra alloys includes materials with significantly higher levels of strength than those of the conventional Cu-Ni alloys
- The high strength **bercotherm®** alloys make it possible to produce smaller sizes, which, in turn, will reflect in more efficient prices per meter of wire



bercotherm® being used for low temperatured heating systems

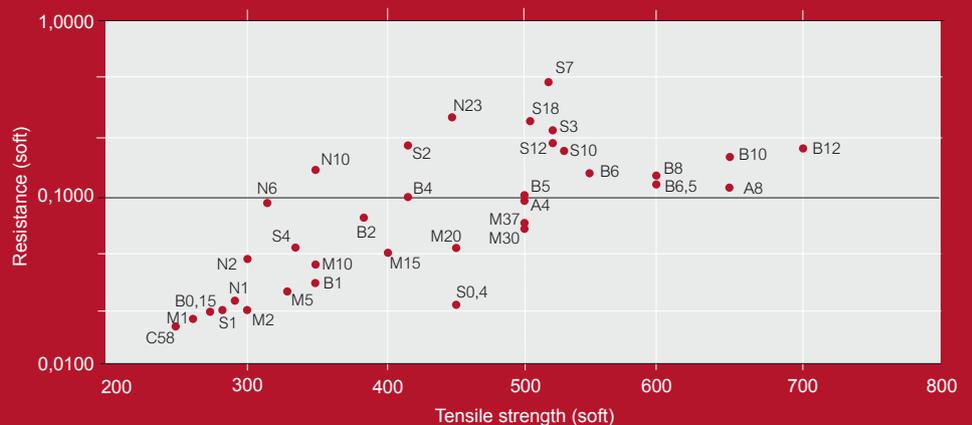


bercotherm® being used for piping systems

bercotherm® product range

bedra alloy		Conductivity (MS/m)		Temp.coeff. of resistance %/K	Resistivity (Ohm x mm ² /m)		Tensile strength (N/mm ²)		Density kg/dm ³
		hard	soft		hard	soft	hard	soft	
bercotherm	A4	9,1	10,6	0,06	0,1099	0,0943	950	500	8,3
bercotherm	A8	5,8	8,3	0,0635	0,1724	0,1205	1250	650	7,7
bercotherm	B0,15	44	45	0,31	0,0227	0,0222	520	270	8,9
bercotherm	B1	32	33	0,231	0,0313	0,0303	700	350	8,9
bercotherm	B2	13,5	14	0,102	0,0741	0,0714	900	380	8,8
bercotherm	B4	9,6	10	0,0726	0,1042	0,1000	1100	420	8,8
bercotherm	B5	9,5	10	0,0782	0,1053	0,1000	1100	500	8,8
bercotherm	B6	6,8	7,1	0,065	0,1471	0,1408	1200	550	8,8
bercotherm	B6,5	7,8	8,35	0,065	0,1282	0,1198	1200	600	8,8
bercotherm	B8	6,7	7,3	0,0624	0,1493	0,1370	1250	600	8,8
bercotherm	B10	5,5	6	0,059	0,1818	0,1667	1200	650	8,8
bercotherm	B12	4,5	5,1	0,051	0,2222	0,1961	1200	700	8,8
bercotherm	C58	56	58	0,39	0,0179	0,0172	480	250	8,9
bercotherm	M1	47,5	50,5	0,34	0,0211	0,0198	550	260	8,9
bercotherm	M2	43	44,5	0,275	0,0233	0,0225	600	280	8,9
bercotherm	M5	33	34,5	0,231	0,0303	0,0290	650	330	8,9
bercotherm	M10	23	25,5	0,188	0,0435	0,0392	700	350	8,8
bercotherm	M15	19	21	0,17	0,0526	0,0476	800	400	8,8
bercotherm	M20	15,5	19	0,161	0,0645	0,0526	900	450	8,7
bercotherm	M30	12,5	16	0,155	0,0800	0,0625	1000	500	8,5
bercotherm	M37	11,5	15	0,124	0,0870	0,0667	1000	500	8,4
bercotherm	N1	38	39	0,3	0,0263	0,0256	530	290	8,9
bercotherm	N2	22,5	23	0,157	0,0444	0,0435	500	300	8,9
bercotherm	N6	10,7	10,8	0,09	0,0935	0,0926	570	320	8,9
bercotherm	N10	7	7	0,0509	0,1429	0,1429	650	350	8,9
bercotherm	N23	3,3	3,4	0,025	0,3030	0,2941	800	450	8,9
bercotherm	S0,4	39	41	0,26	0,0256	0,0244	800	450	8,9
bercotherm	S1	43	45	0,365	0,0233	0,0222	550	300	8,9
bercotherm	S2	4,9	5,1	0,0357	0,2041	0,1961	1000	420	8,7
bercotherm	S3	3,9	4	0,0303	0,2564	0,2500	1000	520	8,5
bercotherm	S4	18,5	18,7	0,128	0,0541	0,0535	730	340	8,9
bercotherm	S7	2,2	2,3	0,0025	0,4545	0,4348	1100	520	8,4
bercotherm	S10	4,9	5,2	0,045	0,2041	0,1923	1000	530	8,5
bercotherm	S12	4,6	4,8	0,0416	0,2174	0,2083	1100	520	8,65
bercotherm	S18	3,6	3,55	0,031	0,2778	0,2817	1100	500	8,75

Ratio resistivity (soft) /
tensile strenght;
logarithmic presentation



Product range

Spools:

- K 100
- K 125
- K 160
- K 200
- K 250
- K 355
- Further spools upon request.

Further packagings:

- Drums – 100 kg and 200 kg
- Coils – upon request

Diameter round wire:

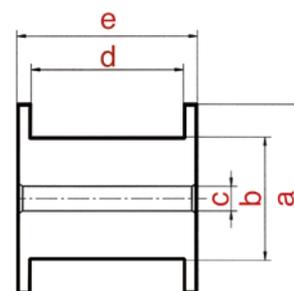
- From 0,02 – 3,5 mm
- Further diameter upon request.

Upon request:

- Electroplated coating
- Enamelled wire
- Stranded wire
- Profiled wire

Dimension and volumes of spools

Type	Volume [max. kg]	Flange a [mm]	Core b [mm]	Bore c [mm]	Interior size d [mm]	Exterior size e [mm]
K 100	1,6	100	63	16	80	100
K 125	3,5	125	80	16	100	125
K 160	8	160	100	22	128	160
K 200	16	200	125	22	160	200
K 250	25	250	160	22	160	200
K 355	45	355	224	36	160	200



www.bercotherm.com