



Construction:

- 1 fine-stranded tinned or bare copper
- 2 core insulation of silicone (2G11)
- 3 impregnated fibreglass braiding

Application

Silicone rubber is resistant to extreme temperature conditions, as for high (up to 180 °C, briefly even to 250 °C), so also for low (-60 °C) temperature. It has a high point (temperature) of inflammability, it is halogen-free, releases no corrosive gases at combustion, and around the conductor is formed additional insulation of silicone-oxide ashes. Due to a higher electrical resistance, tinned copper is also more suitable for higher temperatures (up to 220 °C) than bare copper. Such composition of these conductors makes them applicable in extreme temperature environment, for inst. in steel production, aircraft industry, same as in shipbuilding, cement plants and glass and ceramics factories, in electric power plants etc. They are also suitable for inner wiring of lighting, heating elements, burners, furnaces etc. To retain its mechanical properties at temperatures higher than 90 °C, silicone rubber needs to be properly ventilated or laid outdoor or in tubes. Glass fibers increase mechanical resistance of conductor.

Standards

- DIN VDE 0282 part 3
- DIN VDE 0250 part 1
- HRN HD 22.3 S3
- IEC 60245-3

Construction

Conductor: tinned copper conductor, fine wired stranded, class 5 acc. to IEC 60228 / HD 383 / DIN VDE 0295
 Insulation: silicone rubber
 Braid: glass fiber grid

Technical data

Temperature range:
 operating temp.: -60 °C up to +180 °C
 short-term peak temp.: 220 °C
 Nominal voltage: $U_0/U = 300/500$ V
 Test voltage: 2000 V
 Behaviour in fire: IEC 60332-1
 Halogen-free: IEC 60754-1
 Corrosiveness of combustion gases: not corrosive acc. to IEC 60754-2
 Specific el. resistance of insulation: > 200 M Ω x km
 Maximal tensile strength:
 under normal conditions: 5 N/mm²
 after ageing (240h / 200°C): 4 N/mm²
 Minimal inner bending radius: 15D

DIMENSIONS

Dimensions – number of cores x conductor cross-section	Construction of individual conductor	Insulation thickness	External diameter	Conductor resistance at 20 °C	Cu weight	Cable weight	Packing*
	nominal	nominal		max.		approx.	
N x mm ²	n x mm	mm	mm	Ω/km	kg/km	kg/km	
1 x 0,25	14 x 0,15		2,0	79,3	2,4	7,7	c.100
1 x 0,5	16 x 0,20	0,6	2,3	40,1	4,8	12,4	c.100
1 x 0,75	24 x 0,20	0,6	2,6	26,7	7,2	16,2	c.100
1 x 1,0	32 x 0,20	0,6	2,7	20,0	9,6	18,2	c.100
1 x 1,5	30 x 0,25	0,6	3,0	13,7	14,4	23,4	c.100
1 x 2,5	50 x 0,25	0,7	3,6	8,21	24	35,2	c.100
1 x 4	56 x 0,30	0,8	4,4	5,09	38,4	53,5	c.100
1 x 6	84 x 0,30	0,8	5,3	3,39	57,6	77,4	c.100
1 x 10	80 x 0,40	1,0	6,5	1,95	96	129,2	c.100
1 x 16	128 x 0,40	1,0	7,8	1,24	153,6	198,4	CUT
1 x 25	200 x 0,40	1,2	9,3	0,795	240	303,0	CUT
1 x 35	280 x 0,40	1,2	10,5	0,565	336	413,2	CUT
1 x 50	400 x 0,40	1,4	13,3	0,393	480	577,8	CUT
1 x 70	356 x 0,50	1,4	14,9	0,277	672	762	CUT
1 x 95	485 x 0,50	1,6	18,4	0,210	912	1044	CUT
1 x 120	614 x 0,50	1,6	19,4	0,164	1152	1276	CUT
1 x 150	765 x 0,50	2,0	23,4	0,132	1440	1630	CUT
1 x 185	944 x 0,50	2,2	24,0	0,108	1776	1922	CUT

*) Packing: c.100 = coil 100 m CUT = cable in different lengths on drum or reel, possible cutting at required length