

NBR RUBBER DOUBLE INSULATED EXTRA FLEXIBLE COPPER WELDING CABLE

Welding Cable Structure

generally conforms to, Based on CENELEC HD 22-6 31, VDE 0282, IEC 245-6, BS 6899, IS 6830/84

Conductor:

High conductivity, bare annealed copper flexible conductor, EC copper class 5 and class 6 generally conforms to IEC 60228, DIN VDE 0281

Insulation:

Double Insulated flexible Nitrile rubber (NBR) insulated

Colour code:

Orange & Black Jacket

*Any other Color on specific request can also be supplied

Welding Cable Technical Data

Fixed installation : -30°C to max. + 90°C

Nominal voltage : 600 V

Test voltage : 2500 V

Mechanical properties : Tensile strength = 10 N/mm² Min.
Elongation = 300 Min.

Min. bending radius : 6 x cable diameter

Flame propagation : Flame retardant test
as per IEC 60332-1

Welding Cable features

- Ultra high performance flexible welding lead, double insulated
- Better flame retardant properties
- Excellent flexibility to last longer in flex applications Based on CENELEC HD 22-6 31, VDE 0282, IEC 245-6, IS 473, BS 638-4
- Outstanding toughness & durability
- High resistance to cuts, tears & abrasion
- Resistance to oil, solvents and chemicals
- Excellent ozone and weather resistant

Welding Cable Application

NBR/NBR

Designed for the secondary (high current) connection to automatic or hand – held metal arc welding electrodes. It is suitable for flexible use under rugged conditions, on assembly lines and conveyor systems, in machine tool and automatically operated line and spot welding machines.

Standard length cable packing:

Coils 100, 200, 300 and 500 m. in wooden reels

Technical Data Table

Current Rating :

The maximum current ratings of flexible welding cables for different duty cycles are based on an ambient air temperature of 25°C and a maximum conductor temperature of 90°C. The percentage duty cycles for various processes and applications are as follows:

- Automobile Welding : up to 100%
- Semi-automatic Welding : 30% to 85%
- Manual Welding : 0% to 60%
- Very intermittent or Occasional Welding : up to 20%

Voltage Drop :

When total cable lengths in excess of 15 mtrs., are involved, it may be necessary to use cables of larger cross section to ensure that the voltage drop is not excessive and welding currents are maintained at adequate levels.

TECHNICAL INFORMATION

Cross Sectional Area	Copper Construction	Inner Dia.	Outer Dia Appx.	Max. Conductor Resistance at 20 °C	Current rating					Non Welding Application
					Welding applications					
					Duty Cycle					
					100%	85%	60%	30%	20%	
Sq.mm	Nos. X Dia. mm	mm	mm	Ω/km	amp	amp	amp	amp	amp	amp
10	322 X 0.20	6.30	9.90	1.910	105	115	135	190	235	110
16	511 X 0.20	8.00	10.70	1.210	135	145	175	245	302	138
25	798 X 0.20	9.50	12.10	0.780	180	195	230	330	402	187
35	1121 X 0.20	11.00	14.20	0.554	225	245	290	410	503	233
50	1596 X 0.20	12.30	16.30	0.386	285	310	370	520	637	295
70	2220 X 0.20	14.40	18.70	0.272	355	385	460	650	794	372
95	1349 X 0.30	16.60	20.80	0.206	430	470	560	790	961	449
120	608 X 0.50	18.20	23.00	0.161	500	540	650	910	1118	523
150	760 X 0.50	21.10	27.60	0.129	580	620	740	1040	1297	608
185	943 X 0.50	23.80	30.80	0.106	660	715	850	1200	1476	690
240	1225 X 0.50	26.80	34.00	0.0801	710	770	916	1296	1587	744
300	1498 X 0.50	30.30	37.50	0.0641	800	850	1035	1450	1790	840
400	2035 X 0.50	33.60	41.30	0.0486	925	1000	1195	1690	2070	970

- The number of wires is approximate and wire diameter is nominal; they shall be such as to satisfy the requirements of conductor resistance of IEC 60228 / DIN VDE 0295 / IS 8130 / BS 6360
- In view of continuous improvements in our design and process, specifications given here in are subject change without notice.

- > All are flexible conductor
- > Insulation material is NBR
- > Sheath material is NBR

Rating factors for variation in ambient temperature

Ambient temperature °C	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°
Rating Factor	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.69	0.64	0.57

