# Welding Cable



## H01N2-D EXTRA FLEXIBLE COPPER WELDING CABLE

### Welding Cable Structure

generally conforms to, Based on CENELEC HD 22-6, DIN VDE 0282 ,IEC 245-6, BS 638-4

**Conductor:**
Extra-fine class 5 conductor for H01N2-D conforms to IEC 60228, DIN VDE 0295

**Separation:**
Polyester tape (25 to 30) Micron

**Outer Sheath:**
HOFR Sheath, black and oil resistant

*Any other Color on specific request can also be supplied

### Welding Cable Technical Data

| | | |
|---|---|---|
| **Fixed installation** | : | -30°c to max.+ 90°C |
| **Nominal voltage** | : | 100/100 V |
| **Test voltage** | : | 1000 V |
| **Mechnical properties** | : | Tensile strength = 10 N/mm$^2$ Min.<br>Elongation = 300 Min. |
| **Min. bending radius** | : | 4 x cable diameter |
| **Flame propagation** | : | Flame retardant test as per IEC 60332-1 |

### Welding Cable features

- Ultra high performance flexible welding lead, double insulated for longer life and added safety
- Excellent flexibility to last longer in flex applications
- RoHS Compliant
- 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

H01N2-D
H01N2-D 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 duly cycles are based on an ambient air temperature of 25°c and a maximum conductor temperature of 90°c. The percentage duly 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 | Nominal Thickness | Outer Dia Appx. | Max. Conductor Resistance at 20˚C | Current rating | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Welding applications | | | | | |
| | | | | | Duty Cycle | | | | | |
| | | | | | 100% | 85% | 80% | 60% | 35% | 20% |
| Sq.mm | Nos. X Dia. mm | mm | mm | Ω/km | amp | amp | amp | amp | amp | amp |
| 10 | 322 X 0.20 | 2.00 | 8.10 | 1.910 | 100 | 100 | 100 | 101 | 106 | 118 |
| 16 | 511 X 0.20 | 2.00 | 9.10 | 1.210 | 135 | 136 | 136 | 139 | 150 | 174 |
| 25 | 798 X 0.20 | 2.00 | 10.60 | 0.780 | 180 | 182 | 183 | 190 | 213 | 254 |
| 35 | 1121 X 0.20 | 2.00 | 11.80 | 0.554 | 225 | 229 | 231 | 243 | 279 | 338 |
| 50 | 1596 X 0.20 | 2.20 | 13.70 | 0.386 | 285 | 293 | 296 | 316 | 371 | 457 |
| 70 | 2220 X 0.20 | 2.40 | 16.60 | 0.272 | 355 | 367 | 373 | 403 | 482 | 602 |
| 95 | 1349 X 0.30 | 2.60 | 18.20 | 0.206 | 430 | 448 | 456 | 498 | 606 | 765 |
| 120 | 608 X 0.50 | 2.80 | 21.60 | 0.161 | 500 | 524 | 534 | 587 | 721 | 917 |
| 150 | 760 X 0.50 | 3.00 | 24.00 | 0.129 | 580 | 610 | 622 | 689 | 853 | 1090 |
| 185 | 943 X 0.50 | 3.20 | 26.30 | 0.106 | 665 | 702 | 717 | 797 | 995 | 1277 |
| 240 | 1225 X 0.50 | 3.50 | 29.20 | 0.0801 | 710 | 770 | 916 | 1296 | 1587 | 744 |
| 300 | 1498 X 0.50 | 3.60 | 31.70 | 0.0641 | 800 | 850 | 1035 | 1450 | 1790 | 840 |
| 400 | 2035 X 0.50 | 3.80 | 36.00 | 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 HOFR

### Rating factors for variation in ambient temprature

| 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 |