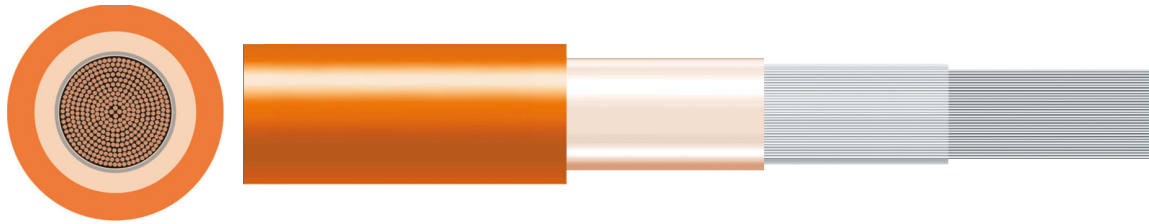


## 0361-TQ SINGLE CORE WELDING CABLE



The 0361TQ welding cable, also known as HOFR cable, is double-insulated and flame retardant, meeting rigorous industry standards. Its durable construction, including an outer sheath designed to withstand oils, greases, heat, and hot particles, makes it ideal for connecting electric welding machines to welding guns. Suitable for both automatic and manual welding, this high-quality cable is widely used in industries such as manufacturing, assembly lines, and car repairs.

\* Please note, this standard has now been withdrawn, although BS638 Part 4 remains a commonly used reference term.

<b>CONDUCTOR</b>	Tinned Copper
<b>STRANDING</b>	Class 6
<b>INSULATION</b>	EPR
<b>OUTERSHEATH</b>	CSP
<b>OUTERSHEATH COLOUR</b>	Black, Orange
<b>MINIMUM BENDING RADIUS</b>	Overall Bending Radius 6x
<b>OPERATING TEMPERATURE</b>	85°C
<b>STANDARDS</b>	BS638 part 4 * (withdrawn). EN 60228 Flame Retardant according to IEC/EN 60332-1-2

# SPECIFICATION DATA

## DE-RATING FACTORS

Ambient Temperature	25°C	30°C	35°C	40°C	45°C
De-Rating Factor	1	0.96	0.91	0.87	0.82

The above table is in accordance with Table A.7 of BS 638 Part 4

**ELECTRICAL CHARACTERISTICS** Duty Cycle and Current Carrying Capacity The current carrying capacity of a welding cable depends on the length of the duty cycle. The duty cycle is the length of time during which a loaded current passes through the cable over an operation period of 5 minutes, expressed as a percentage of that period. For example, if the current is flowing for the whole 5 minutes the duty cycle is 100%, and if the current is flowing for 1 minute the duty cycle is 20%. As conductor temperature varies according to the time in use as well as current, ratings shown are given as a guide. The permissible loading of the cable for duty cycles other than those shown in the table can be calculated using the following formula:  $I = I_{100} \times \sqrt{100/F}$  Where: I: is the maximum permissible loading current for the required duty cycle. I 100 : is the maximum permissible loading current for a duty cycle of 100%. F : is the required duty cycle calculated as a percentage of the 5 minute operation period. Typical guidance values for different welding processes are as follows: Fully automatic welding 100% Semi-automatic welding 65 - 85% Manual welding 30 - 60% Very infrequent or occasional welding 20%

## CURRENT CARRYING CAPACITY

Nominal Cross Sectional Area mm <sup>2</sup>	Current Rating for Single Cycle Operation Over A Maximim Period Of 5 Minutes Amps 100%	Current Rating for Single Cycle Operation Over A Maximim Period Of 5 Minutes Amps85%	Current Rating for Single Cycle Operation Over A Maximim Period Of 5 Minutes Amps 60%	Current Rating for Single Cycle Operation Over A Maximim Period Of 5 Minutes Amps 35%
16	135	145	175	230
25	180	195	230	300
35	225	245	290	375
50	285	305	365	480
70	355	385	460	600
95	430	470	560	730
120	500	540	650	850
150	580	630	750	980
185	665	720	860	1120
240	780	850	975	1250

## Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

Nominal Cross Sectional Area mm <sup>2</sup>	Maximum Diameter of Wires in Conductors mm	Maximum Resistance of Conductors at 20°C operation 2000 Wires
120	0.51	0.161
150	0.51	0.129
185	0.51	0.106
240	0.51	0.0817

## CONDUCTORS

### Class 6 Flexible Copper Conductors for Single Core and Multi-Core Cables

Nominal Cross Sectional Area mm <sup>2</sup>	Maximum Diameter Of Wires In Conductor mm	Maximum Resistance of Conductors at 20°C operation 2000 Wires
16	0.21	1.21

25	0.21	0.78
35	0.21	0.554
50	0.21	0.386
70	0.21	0.272
95	0.21	0.206

DIMENSIONS

Type 0361TQ - Tinned Copper Conductors

BATT Part No	Conductor Class	Nominal cross sectional area of conductor	Total Radial thickness of covering	Approx overall diameter	Weight
19003	6	16	2	10.9	212
19006	6	25	2	12.5	300
19012	6	35	2	14	403
19034	6	50	2.2	16	560
19036	6	70	2.4	18.6	776
19042	6	95	2.6	21.2	1035
19029	5	120	2.8	23.1	1300
19031	5	150	3	24	1900
19032	5	185	3.2	27.9	1944
19060	5	240	3.4	31.5	1064

The information in this datasheet is for guidance only and subject to change without liability. Images provided are representations; actual cable dimensions may vary due to manufacturing tolerances.

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