exothermic welding CR1

Copper conductor end onto a horizontal reinforcing bar

Complies with IEEE 837 and UL 467

Conductor-to-reinforcing bar exothermic welding



Code	CR1
Connection type	Copper conductor end onto a horizontal reinforcing bar
Group	Conductor to reinforcing bar
Conductor cross-section	16 to 300 mm²
Reinforcing bar	10 - 40 mm
Weld powder	KWD 090 to 2 × KWD 150
Matching handle clamp	HC 01
Standard	As per IEEE 837 and UL 467
Mould body material	High-grade graphite
Mould lid material	Stainless steel
Mould life	50 to 60 welds with correct use

exothermic welding CR1 Used for joining the end of a copper conductor onto a horizontal reinforcing bar in earthing, bonding and lightning protection networks. After welding, the joint fuses with the conductors and has no nuts or bolts to work loose over time.

Mould and powder selection table

Reinforcing bar (mm)	Conductor (mm²)	Weld powder	Mould code
10 - 40	16	KWD 090	CR1-016
10 - 40	25	KWD 090	CR1-025
10 - 40	35	KWD 090	CR1-035
10 - 40	50	KWD 115	CR1-050
10 - 40	70	KWD 115	CR1-070
10 - 40	95	KWD 150	CR1-095
10 - 40	120	KWD 150	CR1-120
10 - 40	150	KWD 200	CR1-150
10 - 40	185	KWD 250	CR1-185
10 - 40	240	KWD 250	CR1-240
10 - 40	300	2 × KWD 150	CR1-300

The mould code and powder size are also marked on the lid of each mould. Do not substitute powder from another mould or another size. For other sizes, contact our specialists.

Preparation and welding

Use a grinder or brush to clean rust, mill scale and any coating from the weld area on the reinforcing bar until it shines. Wrap ribbed reinforcing bar with the heat insulation from the box so molten metal cannot run out between the ribs.

1. Check the mould and powder against the table.
2. Preheat a cold mould before the first weld.
3. Clean the conductors to bright metal and dry them fully.
4. Close the handle clamp, place the conductors in the centre of the chamber and lock the mould.
5. Place the steel disc concave side up and pour in the powder.
6. Add the starting powder, close the lid and ignite it with a flint igniter.
7. Wait at least one minute, then open the mould.
8. Clean the mould with a soft brush and a scraper; never use a wire brush.

Welds KALWELD Complies with IEEE 837 and UL 467 , welds KALWELD have passed freeze testing (10 cycles), thermal cycling (25 cycles) and a 20 kA short-circuit test at the Power and Water University of Technology (Shahid Abbaspour) (reports 95/4221 and 95/4220, 1395/12/24).

Result
Approved by

Full illustrated guide, safety notes and troubleshooting: exothermic welding instructions KALWELD at www.kalot.ir

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