exothermic welding CR2

Copper conductor branch joint to a reinforcing bar

Complies with IEEE 837 and UL 467

Conductor-to-reinforcing bar exothermic welding



Code	CR2
Connection type	Copper conductor branch joint to a reinforcing bar
Group	Conductor to reinforcing bar
Conductor cross-section	16 to 300 mm²
Reinforcing bar	16, 20, 25, 30 mm
Weld powder	KWD 150 to 3 × KWD 200
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 CR2 Used for branch joints from a copper conductor to a 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
16	16	KWD 150	CR2-16R-016
16	25	KWD 150	CR2-16R-025
16	35	KWD 150	CR2-16R-035
16	50	KWD 150	CR2-16R-050
16	70	KWD 150	CR2-16R-070
16	95	KWD 200	CR2-16R-095
16	120	KWD 200	CR2-16R-120
16	150	KWD 250	CR2-16R-150
16	185	KWD 250	CR2-16R-185
16	240	KWD 250	CR2-16R-240
16	300	2 × KWD 150	CR2-16R-300
20	16	KWD 150	CR2-20R-016
20	25	KWD 150	CR2-20R-025
20	35	KWD 150	CR2-20R-035
20	50	KWD 200	CR2-20R-050
20	70	KWD 200	CR2-20R-070
20	95	KWD 200	CR2-20R-095
20	120	KWD 250	CR2-20R-120
20	150	KWD 250	CR2-20R-150
20	240	2 × KWD 150	CR2-20R-240

Reinforcing bar (mm)	Conductor (mm²)	Weld powder	Mould code
25	16	KWD 200	CR2-25R-016
25	25	KWD 200	CR2-25R-025
25	35	KWD 200	CR2-25R-035
25	70	KWD 250	CR2-25R-070
25	95	KWD 250	CR2-25R-095
25	120	KWD 250	CR2-25R-120
25	150	2 × KWD 150	CR2-25R-150
25	185	2 × KWD 150	CR2-25R-185
25	240	2 × KWD 200	CR2-25R-240
25	300	2 × KWD 200	CR2-25R-300
30	16	KWD 250	CR2-30R-016
30	25	KWD 250	CR2-30R-025
30	35	KWD 250	CR2-30R-035
30	70	2 × KWD 150	CR2-30R-070
30	95	2 × KWD 150	CR2-30R-095
30	120	2 × KWD 200	CR2-30R-120
30	150	2 × KWD 200	CR2-30R-150
30	185	2 × KWD 250	CR2-30R-185
30	240	3 × KWD 200	CR2-30R-240

Reinforcing bar (mm)	Conductor (mm²)	Weld powder	Mould code
20	300	2 × KWD 200	CR2-20R-300

Reinforcing bar (mm)	Conductor (mm²)	Weld powder	Mould code
30	300	3 × KWD 200	CR2-30R-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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