exothermic welding CS2

Through-run copper conductor to a horizontal steel plate

Complies with IEEE 837 and UL 467

Conductor-to-steel plate exothermic welding



Code	CS2
Connection type	Through-run copper conductor to a horizontal steel plate
Group	Conductor to steel plate
Conductor cross-section	16 to 300 mm²
Weld powder	KWD 065 to 2 × 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 CS2 Used for joining a through-run copper conductor to a horizontal steel plate 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. CS2 is the heavier version of this joint, with a larger weld body; it suits joints that need a more substantial weld. For smaller conductors and thinner steel plates, the lighter exothermic welding mould CS9 is the right choice.

Mould and powder selection table

Conductor (mm²)	Weld powder	Mould code
16	KWD 065	CS2-016
25	KWD 065	CS2-025
35	KWD 065	CS2-035
50	KWD 090	CS2-050
70	KWD 115	CS2-070
95	KWD 115	CS2-095
120	KWD 150	CS2-120
150	KWD 200	CS2-150
185	KWD 250	CS2-185
240	2 × KWD 150	CS2-240
300	2 × KWD 200	CS2-300

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

Clean the weld area on the steel down to bright metal with a grinder or file; a brush alone is not enough. Paint, rust, oil and galvanised coating must be removed completely. After welding, cover the exposed surface around the joint with zinc spray or anti-rust paint.

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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