exothermic welding CS9

Through-run copper conductor lying flat on a steel plate

Complies with IEEE 837 and UL 467

Conductor-to-steel plate exothermic welding



Code	CS9
Connection type	Through-run copper conductor lying flat on a steel plate
Group	Conductor to steel plate
Conductor cross-section	16 to 240 mm²
Weld powder	KWD 045 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 CS9 Used for joining a through-run copper conductor lying flat on a 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. CS9 is the lighter, lower-profile version of this joint and suits smaller conductors and thinner steel plates. For heavier joints, see exothermic weld CS2 instead.

Mould and powder selection table

Main conductor (mm²)	Weld powder	Mould code
16	KWD 045	CS9-016
25	KWD 045	CS9-025
35	KWD 090	CS9-035
50	KWD 090	CS9-050
70	KWD 115	CS9-070
95	KWD 115	CS9-095
120	KWD 150	CS9-120
150	KWD 200	CS9-150
185	KWD 250	CS9-185
240	2 × KWD 150	CS9-240

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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