exothermic welding CT1

Bare copper conductor to the end of a copper tape

Complies with IEEE 837 and UL 467

Conductor-to-tape exothermic welding



Code	CT1
Connection type	Bare copper conductor to the end of a copper tape
Group	Conductor to tape
Conductor cross-section	16 to 240 mm²
Tape dimensions	20×3 to 60×5 mm
Weld powder	KWD 045 to KWD 250
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 CT1 Used for joining a bare copper conductor to the end of a copper tape 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

Conductor (mm²)	Tape (mm)	Weld powder	Mould code
16	20×3	KWD 045	CT1-016-203
25	20×3	KWD 045	CT1-025-203
25	25×3	KWD 045	CT1-025-253
35	20×3	KWD 045	CT1-035-203
35	25×3	KWD 045	CT1-035-253
50	20×3	KWD 045	CT1-050-203
50	25×3	KWD 045	CT1-050-253
70	25×3	KWD 065	CT1-070-253
70	25×5	KWD 090	CT1-070-255
70	30×3	KWD 090	CT1-070-303
95	25×5	KWD 090	CT1-095-255
95	30×3	KWD 090	CT1-095-303
95	30×5	KWD 090	CT1-095-305
120	30×3	KWD 090	CT1-120-303
120	30×5	KWD 115	CT1-120-305
120	40×3	KWD 115	CT1-120-403

Conductor (mm²)	Tape (mm)	Weld powder	Mould code
120	40×5	KWD 115	CT1-120-405
150	30×3	KWD 115	CT1-150-303
150	30×5	KWD 115	CT1-150-305
150	40×3	KWD 115	CT1-150-403
150	40×5	KWD 115	CT1-150-405
150	50×5	KWD 150	CT1-150-505
185	30×3	KWD 150	CT1-185-303
185	30×5	KWD 150	CT1-185-305
185	40×3	KWD 150	CT1-185-403
185	40×5	KWD 150	CT1-185-405
185	50×5	KWD 200	CT1-185-505
185	60×5	2 × KWD 150	CT1-185-605
240	30×5	KWD 200	CT1-240-305
240	40×3	KWD 200	CT1-240-403
240	40×5	KWD 200	CT1-240-405
240	50×5	KWD 250	CT1-240-505

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 both conductors bright with a wire brush. The tape must be flat and free of twists so the mould closes fully on it.

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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