exothermic welding TT41

Four-way cross joint of two copper tapes

Complies with IEEE 837 and UL 467

Tape-to-tape exothermic welding



Code	TT41
Connection type	Four-way cross joint of two copper tapes
Group	Tape to tape
Tape dimensions	20×3 to 50×5 mm
Weld powder	KWD 045 to 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 TT41 Used for a four-way cross joint of two copper tapes in earthing grids, bonding and lightning protection. After welding, the joint becomes one with the conductors and has no bolts or nuts to work loose over time.

Mould and powder selection table

Main tape (mm)	Branch tape (mm)	Weld powder	Mould code
20×3	20×3	KWD 045	TT41-203
20×5	20×5	KWD 065	TT41-205
25×3	25×3	KWD 065	TT41-253
25×5	25×5	KWD 090	TT41-255
30×3	30×3	KWD 090	TT41-303
30×5	30×5	KWD 115	TT41-305
40×3	40×3	KWD 115	TT41-403
40×5	40×5	KWD 150	TT41-405
50×5	50×5	KWD 200	TT41-505

In this table the main tape and the branch tape are the same size; for two tapes of different sizes, send both sizes to our specialists.

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

Cut the tape ends square, flatten them and brighten them with a wire brush so the edges sit side by side in the mould with no gap.

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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