exothermic welding TE1

Copper tape end to the top of an earth rod

Complies with IEEE 837 and UL 467

Tape-to-earth rod exothermic welding



Code	TE1
Connection type	Copper tape end to the top of an earth rod
Group	Tape to earth rod
Earth rod diameter	14.2 mm, 17.2 mm
Tape dimensions	20×3 to 50×5 mm
Weld powder	KWD 090 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 TE1 Used to join the end of a copper tape to the top of an earth rod 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

Earth rod diameter (mm)	Thread (inch)	Tape (mm)	Weld powder	Mould code
14.2	5/8"	20×3	KWD 090	TE1-142-203
14.2	5/8"	20×5	KWD 090	TE1-142-205
14.2	5/8"	25×3	KWD 090	TE1-142-253
14.2	5/8"	25×5	KWD 115	TE1-142-255
14.2	5/8"	30×3	KWD 115	TE1-142-303
14.2	5/8"	30×5	KWD 150	TE1-142-305
14.2	5/8"	40×3	KWD 115	TE1-142-403
14.2	5/8"	40×5	KWD 150	TE1-142-405
14.2	5/8"	50×5	KWD 150	TE1-142-505

Earth rod diameter (mm)	Thread (inch)	Tape (mm)	Weld powder	Mould code
17.2	3/4"	20×3	KWD 115	TE1-172-203
17.2	3/4"	20×5	KWD 115	TE1-172-205
17.2	3/4"	25×3	KWD 150	TE1-172-253
17.2	3/4"	25×5	KWD 150	TE1-172-255
17.2	3/4"	30×3	KWD 150	TE1-172-303
17.2	3/4"	30×5	KWD 150	TE1-172-305
17.2	3/4"	40×3	KWD 150	TE1-172-403
17.2	3/4"	40×5	KWD 200	TE1-172-405
17.2	3/4"	50×5	KWD 200	TE1-172-505

The thread on the top of the earth rod must be cut off before welding. These moulds are made for copper-bonded earth rods.

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 off the thread at the top of the earth rod before welding and flatten the end of the earth rod. These moulds are made for copper-bonded earth rods.

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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