



EXCELERTHINGS[®]
Safest Platform for Electrical Earthing...

INDIA'S FIRST



**CERTIFIED COPPER BONDED
 ELECTRICAL EARTHING AND LIGHTNING PROTECTION PRODUCT MANUFACTURER**

Our Associates



OUR NEW INITIATIVE FOR BETTER FUTURE...

EXCELSAFEPOWER
Manufacturers of Electrical Enclosures & Control Panels

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OUR PRODUCTS

EARTH ENHANCING COMPOUNDS

Earth Enhancing Compounds

- ❖ IEC 62561-7:2018 Tested and Certified (TC No.: MBT/TC/2020K10004)
- ❖ Improves the Conductivity of Soil
- ❖ Enriches the Charge Carrying Ions in the soil
- ❖ Non-Corrosive to Earth Electrodes



Certifications



Electrafill

- ❖ Electronically Conductive Minerals
- ❖ Non-Corrosive to Copper/Copper Bonded
- ❖ Earth Electrodes
- ❖ Minimal Seasonal Variation
- ❖ Eco-Friendly- RoHS (TC No: (8714)337-0050)
- ❖ TCLP (TC No: CGR0000898925) Tested and Certified



Certifications



Conductive Concrete

- ❖ IEC 62561-7:2018 Tested and Certified (TC No: MBT/TC/2020K10004)
 - ❖ Excel Conductive Concrete is a Mixture of highly
 - ❖ conductive Carbon Granules
 - ❖ It increases the surface area of the earth electrode
 - ❖ Exceptionally Low Resistive Material (<0.096 ohm-m)
 - ❖ Non-Corrosive to steel or copper
 - ❖ Maintenance Free-Provides Permanent Earthing Solution.
 - ❖ No effect of Seasonal Variations
- Excellent Solution for Electrical Earthing

Razor Plus

- ❖ Penetrates to the soil rapidly
- ❖ Charge carrying ions energizing the surrounding area



Certifications



Specialities of our Copper Bonded Earth Electrode

Tinned Terminal:

- To prevent bi-metallic corrosion

Nickel Sealing:

- To get good adhesion with copper
- To increase the life of electrode

Pressed Contact:

- To get more Surface area of contact

Copper:

- 99.95% Pure Electrolytic Grade Mitsubishi Copper

SAE 1018 Grade Low Carbon Steel

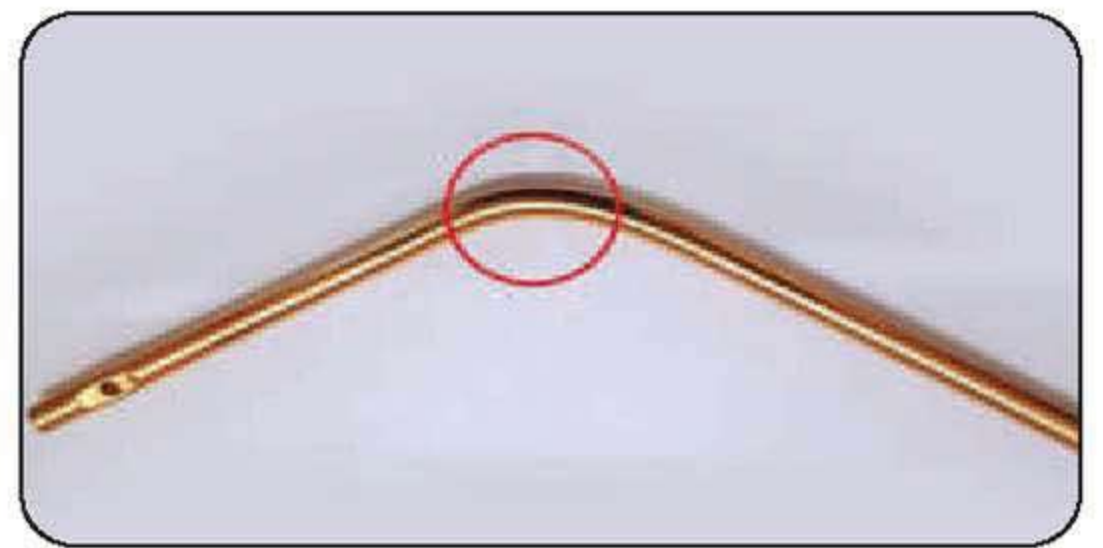
Internal Quality Test as per UL 467



Coating Thickness Test
Clause 9.6.1 (UL 467).



Adhesion Test
Clause 9.7.1 (UL 467)



Bend Test
Clause 9.7.2 (UL 467)

Copper Bonded Rods

99.95% Pure Electrolytic Grade Copper is Molecularly bonded to Nickel-Sealed Low Carbon Steel Core having high tensile strength. Nickel Sealing is done for good adhesion and copper coating will not crack when bent or driven. No part of steel is exposed since copper coating is done after all fabrication.



Diameter (mm)	Length Available (m)
14.2, 16, 17.2, 20, 25, 32, 40	1.2 to 3.0
Standard Coating Thickness:- 250/100 Microns	

Certifications



Advantages of Copper Bonded Rods

- ◆ Superior Electrical, Mechanical and Thermal Properties (IEEE 837)
- ◆ Fast Dissipation of Fault Current
- ◆ No joints beneath the soil as in Plate Electrodes
- ◆ Good Corrosion Resistance than Cast Iron/ Hot Dip GI Electrodes

Certifications

1. IEC 62561-2:2018 (TC No:C2/0000032498)

- ◆ Adhesion Test
- ◆ Bend Test
- ◆ Electrical Resistivity Test
- ◆ Tensile Strength
- ◆ Yield/Tensile Ratio
- ◆ Coating Thickness Test

2. IS 1772 (1973): (TC No: C2/0000030792)

- ◆ Thickness of Copper Coating
- ◆ Corrosion Resistance Test (CASS)
- ◆ Adhesion Test

3. Short Circuit Current - CPRI Bangalore (TC No: SC15357B, SC15357A)

4. ASTM B499: (TC No: ML/23835/4/20-21)

*NB: Customised Products are also available at Customer Request.
For more information, Please Contact us.*

Extendable Copper Bonded Rods

Deeply driven rods are preferred where the soil resistivity decreases with depth. These rods help to reach stable ground, such that the value of the electrode resistance remains stable even if the top layers of the ground dry out. Our Extendable Copper Bonded Rods having internal Thread are designed in such a way that, driving of rods to greater depth are made very easy.



Diameter	Customized Length
17.2mm to 40mm	4mtr, 5mtr, 6mtr, 9mtr & above
Standard Coating Thickness: 250 Microns	

**** PREMIUM CHOICE ****

- ◆ Tapered mating area minimises chipping of thread during driving
- ◆ Stronger threads - BSW standard
- ◆ No effect in joints due to thermal expansion



7nos of Cast Iron Plate 1.2m x 1.2m x 12.5mm for a fault current of 7.87kA in 100ohm-m soil resistivity can be reduced to 5Nos of Extendable Copper Bonded Rod 40mm dia 6mtr Long/ 7Nos of 32mm dia 6mtr Long. Extendable Copper Bonded Rods are used for Transformer Neutral and Body Earthing reducing the overall cost and area required for installation in a more efficient manner.

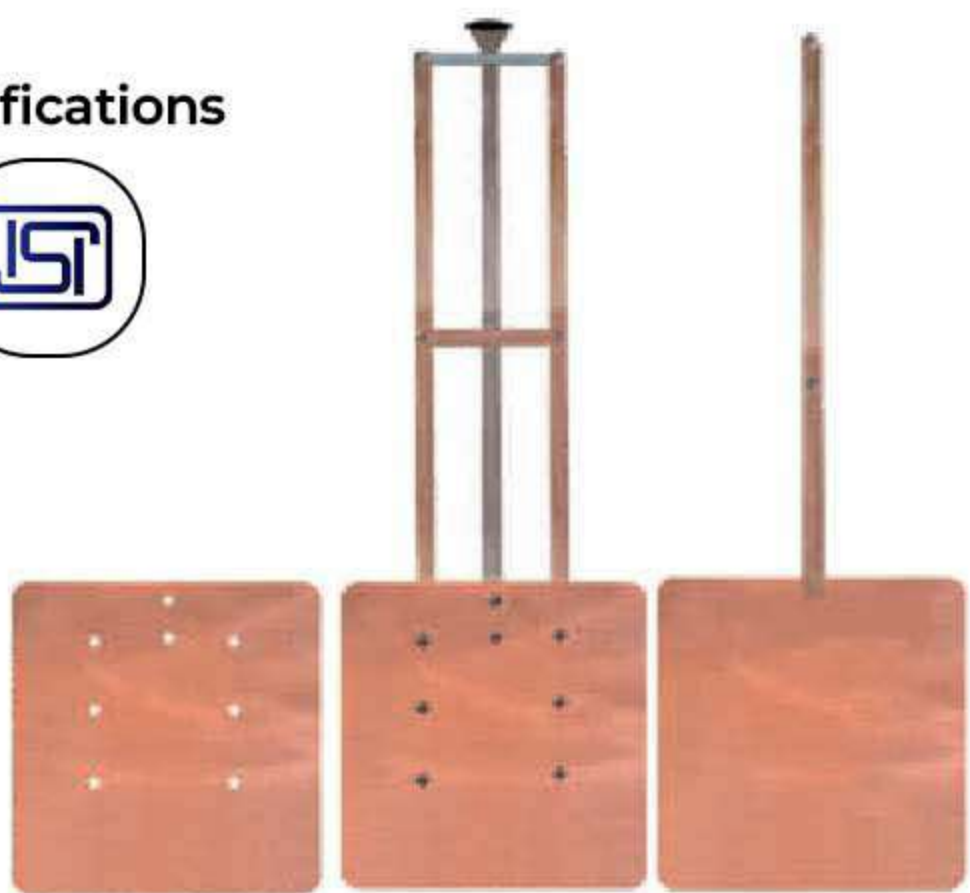
Copper Bonded Plates

Copper Bonded plates economically replaces copper plate and is superior to Galvanized Iron Plate with its inherent advantages due to the combination of steel and copper. The Copper Coating provides good resistance against corrosion, quick discharge of fault current and is durable. 99.95% Pure Electrolytic grade copper is molecularly bonded to superior quality Nickel Sealed Mild Steel. No part of steel is exposed since Copper Electroplating is done after all fabrication

Size (ft)	Thickness (mm)
2' x 2'	3mm/6mm

Copper Bonded Plates with Welded strip provides intact connection with plate Electrode beneath the soil, eliminating the chances of loose contact.

**** PREMIUM CHOICE ****



Copper Bonded Pipes

Copper Bonded pressed pipe is extensively used in highly corrosive soil environment where other Earth Electrodes made of Copper, Hot Dip Galvanized pipe cannot be used due to economical constraints and corrosive nature respectively. Anti-corrosive moisture absorbing minerals is filled and sealed inside copper bonded pipe to eliminate inside out corrosion.



Diameter (mm)	Length Available (m)
42, 48, 75, 96	2.0 to 3.0



- ◆ 99.95% Electrolytical grade copper
- ◆ Standard coating Thickness: 100/250microns

Short Circuit Current Tested and Certified (TC No: CPRIBLRSCLMISC1819T0090) from Central Power Research Institute Bangalore (NABL Accredited Laboratory)

Vertical Air Termination Rods/ Lightning Arresters

Vertical Air terminals, also known as Franklin Rods Confirming to IS/IEC 62305-3 are designed to protect structures, exposed equipment's (Solar PV System, Towers etc) from Direct Lightning Strike. They are made-up of Copper Bonded/Stainless Steel Solid Rods. For getting better contact with the down/interconnecting conductors, Pressed Terminals are provided. It Comes with Nylon Insulated Base which provide proper Insulation and separation with the supporting structure.

Sl No	Model	No of Spike	Dia of Rod
1.	Copper Bonded Single spike LA	1	16mm
2.	Copper Bonded Multi Spike LA	4	20mm
3.	Stainless Steel Multispike LA	4	18mm

Certifications



LIGHTNING ARRESTER EXTENDER

50Sq.mm Aluminium Conductor

Lightning protection conductors made of Electrical Grade Aluminium with Cross sectional Area 50Sq.mm Confirming to IS/IEC 62305-3 and IEC 62561-2 are designed to handle the electrical current flow due to lightning strike. Insulated Down conductors are also available, where separation distance, flashover is a concern and to minimise the risk of Touch Voltage.



Bare Conductor



Insulated Conductor

Earth Bench/ Terminal Strip

Earth Bench/ Terminal Strip provide a convenient common earthing point for electrical installations and Lightning Protection applications. It also acts as equipotential Bonding Bars, which is used to equalise the potential difference between extraneous conductive parts and exposed Conductive parts. They are made of Stainless Steel with disconnecting facility for testing purposes. Nylon Insulated Strip Holders are also provided for better insulation against surface of contact.

Available Sizes:

4, 6, 8, 12 & 16 Holes



Earth Pit / Inspection Chambers

Earth Pit/ inspection Chambers are provided over earthing top to safely enclose the Earthing System, for carrying out maintenance, inspection and Testing Purpose. In order to avoid masonry work at site, Excel Earthings provide ready-made earth pit chambers with removable lid made of high-density, UV Resistant Polypropylene/ Poly Vinyl Chloride Confirming to IEC 62561-5. They are designed in such a way to minimises the effect due to ageing, crack while installed in soil.



Available Sizes

Item Code	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
EPC 18 X 18	180	180	240	240	210
EPC 24 X 24	240	240	310	310	230
EPC 30 X 30	300	300	400	400	280



Certifications



Compression Test/Weight Holding Capacity is Tested and Certified (TC No: 20439,19553) from CIPET Kochi (NABL Accredited Laboratory)

Copper Bonded Strip

Copper Bonded Strips are mainly used for Earthing and Lightning Protection applications, which includes Earthing Conductor, Lightning Down Conductor, Lightning Mesh formation etc. The combination of steel and copper Provides a Cost-effective solution substituting pure copper. They are available in standard Coating Thickness of 100/250microns

Strip Dimension	Max. Length Available
25x3mm, 32x3mm, 25x4mm, 25x6mm, 40x5mm, 50x6mm, 75x6mm	2.5 to 3.0 mtr



Thickness of Copper Coating is tested and certified (TC No: ML/23835/1/20-21, ML/23835/2/20-21, ML/23835/3/20-21) as per ASTM B499 from an NABL Accredited Laboratory

Holder For Aluminium Conductor



HOLDER FOR 8MM INSULATED ALUMINIUM CONDUCTOR



NYLON HOLDER FOR 8MM BARE CONDUCTOR



ROOF INSULATED CONDUCTOR HOLDER



ROOF BARE CONDUCTOR HOLDER

Stainless Steel 304 Grade Accessories



STAINLESS STEEL CROSS CONNECTOR ROD TO ROD



STAINLESS STEEL CONNECTOR ROD TO STRIP



STAINLESS STEEL CONNECTOR ROD TO ROD



STAINLESS STEEL CONNECTOR STRIP TO STRIP

Surge Protection Devices



Surge Protection Device Type 1+2 (1 Phase-25kA)



Surge Protection Device Type 1+2 (3 Phase-12.5kA)



Surge Protection Device Type 1+2 (3 Phase-25kA)

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