



Your
Ultimate Solution for
Earthing

GEL EARTHING ELECTRODE

YOUR SAFETY IS OUR RESPONSIBILITY

Eco-friendly Way To
Protect You And Your Valuables...

IAS-ANZ

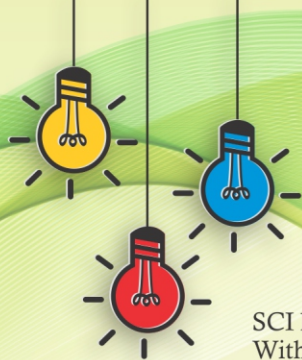


ISO-9001:2015
Certified Company



Tested & Certified





Introduction:

Sun Chem India are the premier organization in the field of Gel Earthing. We are pleased to introduce our selves as SCI leading manufacturer in Gel Earthing (Your Safety is our responsibility).

What is SCI EcoFriendly Earthing :

SCI has developed first ever Gel Earthing after a consistent R&D and is being manufactured & marketed from 1999. With over a decades of expertise and a true backing of 13-14 years of R&D has helped in involve innovative cost effective & environment friendly solutions for your grounding requirements under the registered brand name SCI (GEL Earthing Electrode) & our special hygroscopic compound named SCI back fill compound. This world class product is manufactured to replace the traditional methods of earthing and is a complete solution suitable to any application requiring high performance earthing. SCI Circumstances the inherent defects in the traditional earthing methods like corrosion, self resistance etc. SCI Gel Earthing is dedicated to provide innovative, cost -effective & environment friendly solution for your grounding requirements.

SCI Earthing Backfill Compound :

Our SCI Gel Earthing having a strength named Back-fill compound (B-F-C), our unique back-fill-compound is a combination of natural earth minerals, which having the hygroscopic property, to retain the moisture for a long time. During installation with proper water pouring, our powder B.F.C. convert into the GEL and its quality to retain the moisture upto twenty times in its dry volume as well as it create a gel layer surrounding of our electrode. Our Backfill compound is a combination of totally corrosion free and highly conductive & non-corrosive minerals. Our unique "SCI" back fill compound available in convenient packing of 10kg/15kg/20kg/25kgper of bag.



Trusted By:

The product is tested and certified by various independent testing laboratories like central power Research Institute (C.P.R.I) Bhopal our proven experience with thousand of applications helped the Industries to save money by preventing damage to their valuable equipments.

SCI Gel Earthing Aims At :

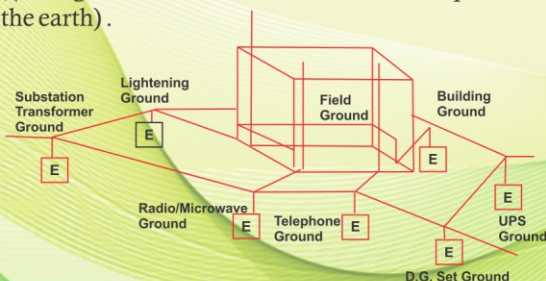
for any Industrial & their valuable and sensitive equipment, the voltage difference between individual electronic equipment as well as noise & surges can harm those equipment. For this SCI aims at to provide the proper and environment friendly grounding to stop electrostatic or dynamic discharge. Thus SCI Aims at:

- In Controlling Radio Frequency Emissions & Electromagnetic Interferences.
- Maintains a stable reference potential for instrument accuracy.
- Providing a easy discharge paths for short circuits and lightning strikes (fault current /surge protection).

Genext Expertise and R&D :

SCI gel Earthing Electrodes are the genext development in the earthing Technology. SCI is the name of innovative ideas for the new method of all type of earthing is the only reliable & proven name for the any earthing solution SCI creating the idea with making GRID ,MESH & TRI-POD as well as FARADEY/OCTOPUS EARTHING Solutions. our SCI Gel Earthing can be safely used for the grounding point for lightning protection system.

SCI earthing electrode stamp it (as per IEEE guide lines), that earthing pit must be interconnected to each other to form a solid grid ,(for big surface area thus result in fast dissipation of current into the earth) .



How SCI play the Important Role :

Our unique SCI B F C maintains the moisture surrounding to the SCI GEL Earthing Electrode, which helps to create the balance & consistence ohmic value with in the safe limit without any fluctuation of results, as a safeguard of equipment.

- As well as its layer works as a highly conductive path to pass the fault current, noise filtrations, resolve the problem of earth to neutral voltage difference and supported to active /passive lightning protection device
- It, also helps to give the life to our SCI Gel Earthing Electrode through its layer between electrode & direct.
- This enables the 'compound' electrode interface that expands and contracts thus reducing the surge impedance (when charged the B F C zone becomes highly positively charged zone as well as gives the cathodic ray to protection to SCI Gel Earthing Electrode.

The Benefits of SCI Gel Earthing:

- Highly reliable for safety of human life.
- High load carrying capacity and maximum fault current dissipation instantly.
- Maintain low resistance value for a very long period having the bare minimum fluctuations.
- Ensures protection always and MAINTENANCE FREE SOLUTION.
- Proper galvanizations & highly conductive.
- Corrosion free with Eco friendly solutions.
- SCI can be used the form of a grid using 3 or more in nos. in an equilateral triangle configuration, duly inter-connected for highly sensitive projects and requirement of big surface Area.
- As per IS:3043-1987 requirement.

Primary Conducting & Surface Area:

- SCI gives maximum surface Area (in sq.mm.).
- SCI gives maximum cross sectional Primary conducting Area (in sq.mm.).



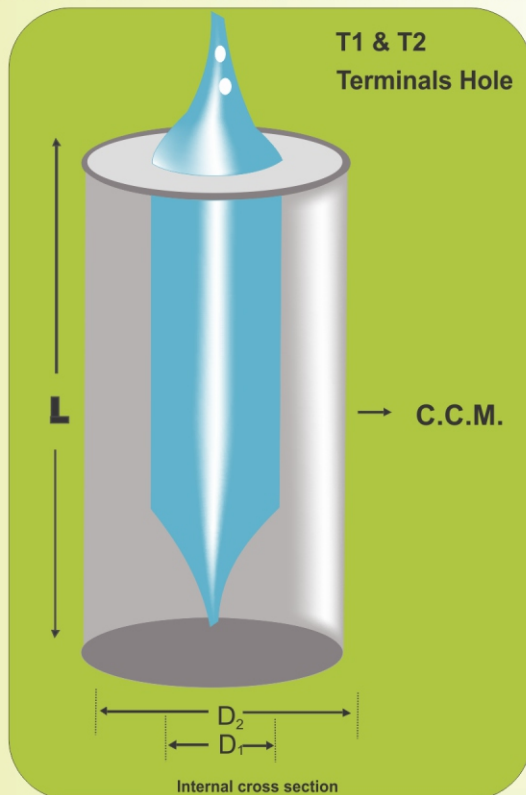
Technical Specification : Dia of G.I./Copper Pipe

Model Code No.	Length (L) (in mm)	Outer Dia(D2) (in mm)	Internal Dia (D1) (in mm)	Terminal (T1&T2) Point Dia (in mm)	MOC
SCI - 19/2	2000 mm	50 mm	25 mm	40x6mm	(G.i.)
SCI - 19/3	3000 mm	50 mm	25 mm	40x6mm	(G.i.)
SCI - 39/2	2000 mm	80 mm	40 mm	50x6mm	(G.i.)
SCI - 39/3	3000 mm	80 mm	40 mm	50x6mm	(G.i.)
SCI - 50/2	2000 mm	46-50 mm	20 mm	40x6mm	(Cu)
SCI - 50/3	3000 mm	46-50 mm	20 mm	40x6mm	(Cu)
SCI - 60/2	2000 mm	76-80 mm	35 mm	50x6mm	(Cu)
SCI - 60/3	3000 mm	76-80 mm	35 mm	50x6mm	(Cu)

The above Specification can be changed at any time for the development of the product.

Note :

- SCI-19 Code No. we recommended this for LT application.
- SCI-39 Code No. we recommended this for HT application.
- SCI-50 Code No. We recommended this for where only copper earthing is required.
- SCI-60 Code No. we recommended this for lightning arrestor earthing.



SCI Gel Earthing Technical Diagram

Maximum Surface Area (Approx.) SCI:

SCI-19	SCI-39	SCI-50	SCI-60
L-2000 mm/3000mm	L-2000 mm/3000 mm	L-2000 mm/3000 mm	L-2000 mm/3000 mm
3,14,000 sq.mm	5,02,400 sq.mm	3,14,000 sq.mm	3,95,640 sq.mm
4,71,000 sq.mm	7,53,600 sq.mm	4,71,000 sq.mm	5,93,460 sq.mm



Your Safety is our Responsibility

SCI assured you about the safety and protection to Human life & your valuable equipments.

The difference is that SCI Gel Earthing Electrode back up with ISI marked G.I. tube. pipe are hot dipped galvanization from both inside and outside. The ISI grade G.I. pipes filled with a special gel type compound, which increase the active functional life of the earthing electrode with consistent result.

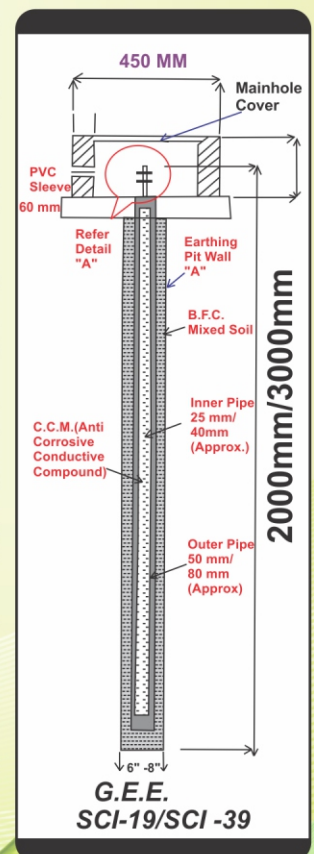
Superiority of SCI gel earthing electrode are virtually maintenance - free and need to be refill with. our backfill compound after a long period of time.

User's:

- Computer and data processing centres.
- Mobile & Communication Towers
- Transmission & Distribution Systems.
- Electrical Sub-station & Power D.G. Sets.
- All Transformer Neutral/Body Earthing.
- Both, Active/Passive type Lightning Arrestor Earthing.
- Body Earthing of any equipment.
- Any microprocessors based equipments.
- Manufacturing Industries & Refineries
- Food processing Unit/Water treatment Plants/ETP/Boilers etc.
- Oil refineries & Petrol pumps.
- Heavy Furnace / All Type of Industries.
- Commercial and residential Complex i.e. Malls etc.
- Wherever the ideal earthing is necessary.
- Hospitals, Hotels and Industries.

Beauty of Installation :

- It is recommended to install SCI in clay highly humid soil.
- Make a pit preferably of 6-B inch dia upto appropriate length of SCI gel earthing electrode.(i.e. 2mtr. Or 3mtr).
- Put the SCI Gel Earthing electrode in vertical positions in the pit with terminal on the top.
- It is recommended to fill-up the Sci Back-Fill compound surrounding of SCI Gel Earthing electrode mixed with proper water pouring simultaneously.
- Make joint with suitable copper wire/strips or G.I. Wire/strips carry for Earthing from your equipment etc. Up to the earthing terminals provide on the top of SCI Gel electrode. Beware, don't hash on the electrode while handling and installation, do not use hammer etc.
- Put the chamber with the cover over the SCI Gel Earthing electrode & even petroleum jelly on the exposed part of SCI Gel Earthing electrode i.e., terminal.
- Do proper water pouring upto 6-7 days after installation.



SCI GEL Earthing Installation Diagram

PRODUCT COMPARISON

S.No.	SCI Gel Earthing Electrode	Traditional Method of Earthing
1.	There are two pipes, one inside and another outside the other i.e., Double pipe protection technology.	One G.I./C.I. pipe of particular diameter.
2.	SCI Safe earth electrode is not in direct contact with the soil.	The earth electrode is in direct contact with the soil.
3.	Thus, result in, absence of corrosion.	Liable to fast corrosion. Subsequently decay of earthing pipe/plate.
4.	No fluctuation of ohmic value. It has been proved at various sites that ohmic value of SCI Gel earthing electrode reduces with age.	Fluctuation of ohmic value is more, resulting in frequently maintenance of gadgets/machines and may endanger human life too.
5.	Since SCI is surrounded by highly conductive soil so the change dissipation through the electrode is very high and the current density across the electrode is very low which results in very high fault current, is sufficient to trip the fault relays.	Distribution short circuit current is less in terms of change dissipation therefore it generates high potential at the pit which results in low fault current in comparison to required tripping circuit of fault protection relays.
6.	Galvanization is adequate i.e. 80 -100 microns.	Galvanization is not adequate.
7.	Practically no need to change i.e. fit and forget.	Needs to be changed frequently in every 3-4 years.
8.	SCI is non-corrosive, so there is not much variations in ohmic value.	Salt, charcoal is used as backfill compound as salt is corrosive electrolyte, it corrodes GI/CI electrodes, Finally get the high ohmic value.
9.	The Back fill Compound used is not soluble in water therefore it becomes the part of the soil around the electrode.	Back fill compound (Salt) used will be washed away in rainy seasons and will be resulted as high ohmic value.
10.	It requires less space and time to install the earthing electrode.	It requires a large space and time to install the Earthing Systems.
11.	SCI Gel Earthing is totally maintenance free earthing. No maintenance is required.	Maintenance required.

* The size & nos. of Earthing Electrodes should be recommended by your Electrical Consultant, Engineers & Contractors, depending on your infrastructure requirement. Ohmic value depends upon the soil & site conditions where ever it has to be used.

SCI Vision:

To serve more & more customers with our products and service with the best quality of our made products we strongly believe that our products certainly create a strong bonding between us. We are working with the vision to establish relations with our customers today and bring them for whole time. Our vision is to gain faith and good relationship with our valuable customers. We are committed to provide best product to our customers or market.

Some of our prestigious brands are safe with us. Now its your turn...



YOUR SAFETY IS OUR RESPONSIBILITY



GEL EARTHING ELECTRODE

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