Since 1962

ASIAN STRECK METALS

ISO 9001:2015 COMPANY

Quality & Customer Satisfaction

STRETCHMET

EXPANDED STRETCH METAL
SUNSCREEN FACADE & ARCHITECTURAL MESH

ASIAN STRECK METALS

Expanded Copper Metal · Stretchmet

ISO 9001:2015 Certified · Since 1962

India · Global Export Markets

Since 1962

One of the World's Oldest &
Most Experienced Manufacturers
of Copper Expanded Metal

ISO 9001 : 2015 CERTIFIED
URS · NABCB · QM016

PRODUCT CATALOGUE

CONDUCT.
CONNECT.
PROTECT.

COPPER EXPANDED METAL MESH

Where Conductivity Meets Craftsmanship

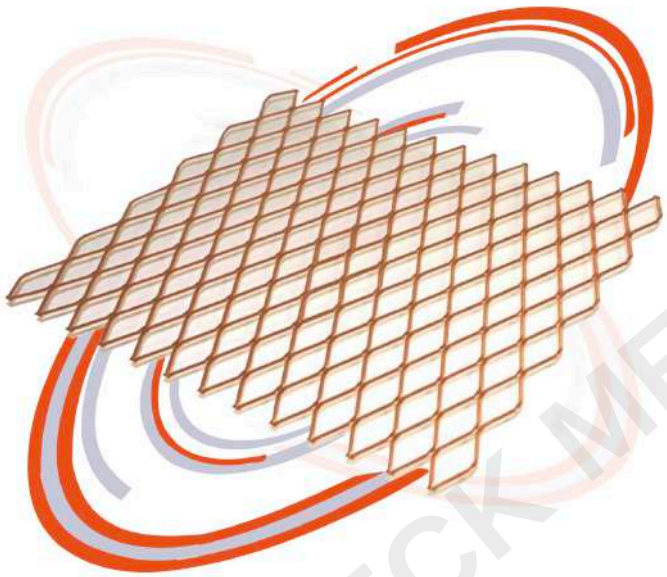
ETP Grade · 101% IACS Conductivity · India & Global Export Markets

EARTHING / GROUNDING | EMI / RFI SHIELDING | FARADAY CAGE | FACADE & ARCHITECTURE | FILTRATION

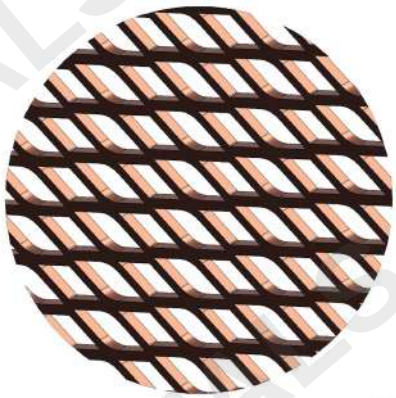
Serving Domestic & International Markets · India · Asia · Europe & Beyond
High-Voltage Labs · Aerospace · Construction · Energy · Architecture · Defence

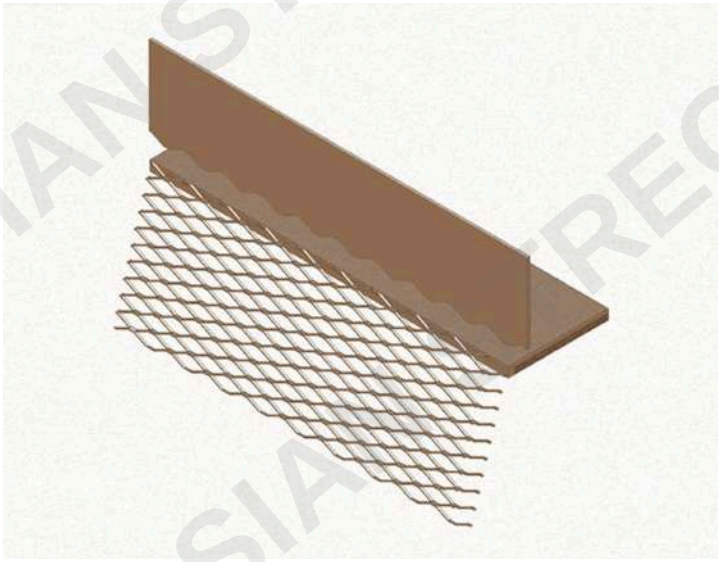
ASIAN STRECK METALS · SINCE 1962 · ISO 9001:2015 · COPPER EXPANDED METAL

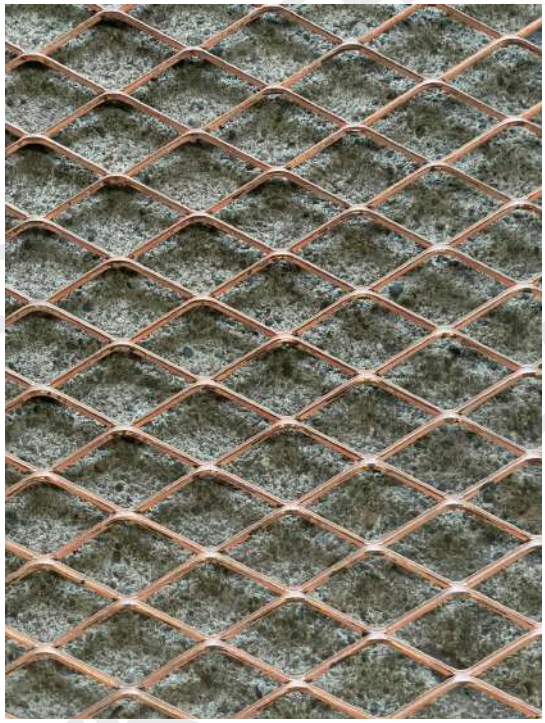
Founded	Purity	Conductivity	Certified	Standard	Standard
1962	≥ 99.9%	101% IACS	ISO 9001:2015	IS 1897:2008	IS 412:1975



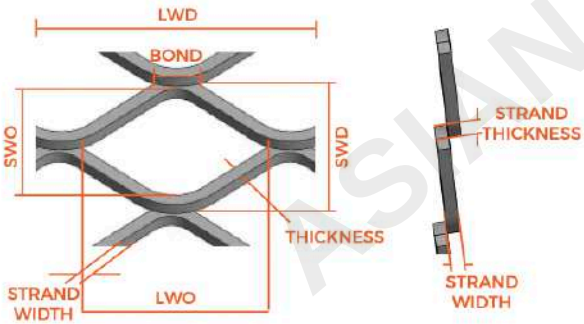
Copper Expanded Metal







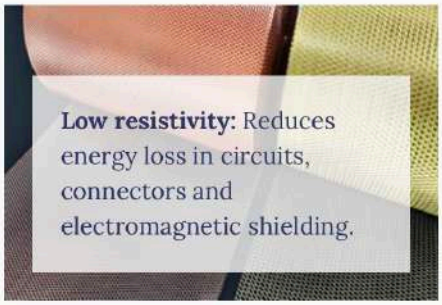
LWO	SWD	LWD	SWO
(Long Way Opening)	(Short Way Dimension)	(Long Way Dimension)	(Short Way Opening)

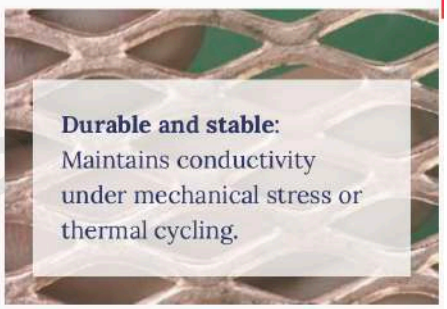


Standard Type

This is our default mesh direction

Standard Copper Expanded Metal — Diamond Pattern, Single-Piece Construction





Applications of copper expanded metal sheet

Copper expanded metal sheet is widely used in many industries, such as:

- Railway.
- Highway.
- Petrochemical.
- Construction.
- Garden parks.

It also can be used as many things, such as:

- High voltage laboratory / Electrical testing laboratory
- Earthing/grounding system
- EMI/RFI shielding
- Facade
- Ceiling
- Stair treads
- Railing

Advantages Over Other Materials

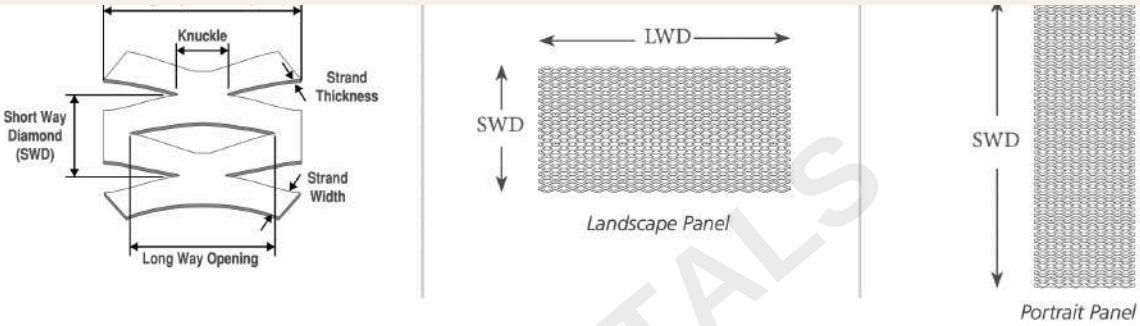
- **Structural Integrity**: Unlike woven mesh, expanded metal is produced from a single sheet by slitting and stretching, meaning there are no joints or welds to unravel, providing better structural stability and consistent conductivity.
- **Corrosion Resistance**: Copper naturally forms a protective patina, ensuring the grounding system remains reliable for decades even in indoor laboratory environments.
- **High Current Capacity**: Its uniform strand structure handles high-current surges better than thinner wire meshes, preventing localized overheating or failure during a flashover.

Storage of copper expanded metal sheet

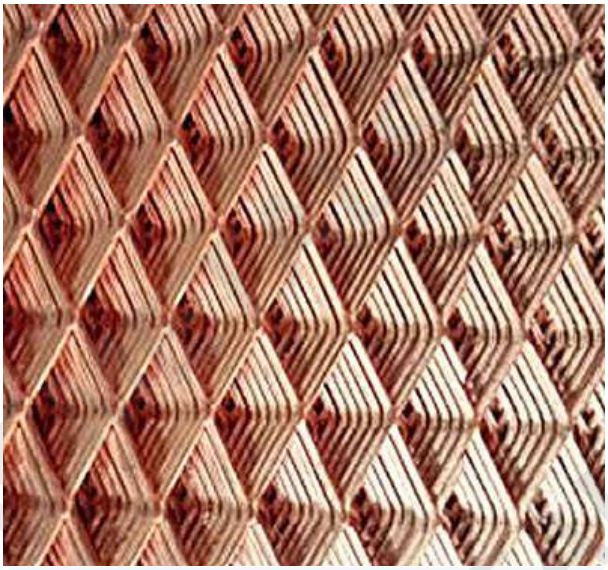
The expanded copper metal sheet should be stored in a warehouse with air circulation, relative humidity of less than 85%, and no corrosive gases. If the product is placed in the ground floor warehouse, it should be more than 200 mm from the ground.

Features of copper expanded metal sheet

- Durable, anti-corrosion and wearable.
- High electrical conductivity and thermal conductivity.
- Good ventilation, lighting, heat dissipation.
- Beautiful appearance with various opening can be designed in many shapes.
- The material in the production process is essentially non-destructive.
- Low maintenance, easy to install.



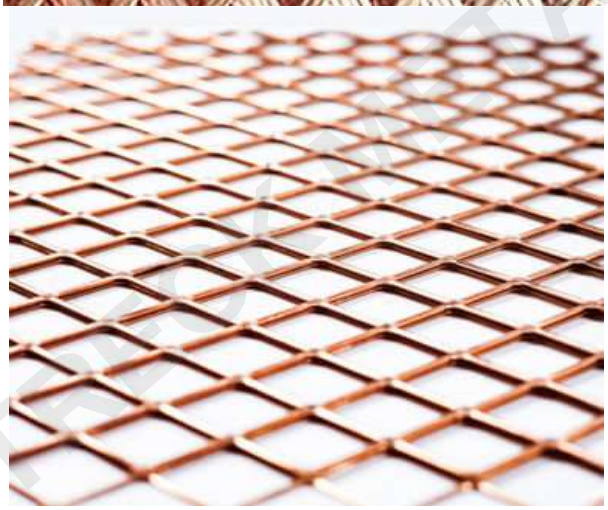
In high-test voltage laboratories, **copper expanded mesh** is a critical component used primarily for grounding and electromagnetic shielding to ensure both personnel safety and measurement accuracy.



Key Uses in High-Voltage Laboratories

- **Faraday Cage Construction**: The mesh is installed on the walls, floor, and ceiling to form a Faraday cage. This shield prevents external electromagnetic waves from interfering with sensitive partial discharge (PD) measurements, often keeping noise levels below 2.0 pC.
- **Equipotential Grounding Grid**: It is typically laid under laboratory floors to create a high-performance grounding system. Its superior electrical conductivity (approximately 100% IACS) ensures a low-impedance path to dissipate large fault currents or test discharges safely into the earth.
- **Noise Reduction**: By using 99.99% oxygen-free pure copper mesh in the floor, laboratories can effectively filter out electromagnetic noise and interference that could otherwise distort high-precision results during transformer or cable testing.
- **Safe Discharge of Residual Energy**: Sections of copper mesh are used as safety grounding straps to discharge residual energy from tested high-voltage equipment before it is handled by personnel.

For high-test voltage laboratories, the precision of measurements and the safety of personnel are non-negotiable. To achieve this, **ETP (Electrolytic Tough Pitch) Grade Copper Expanded Mesh** is the industry standard for constructing reliable grounding grids and shielding enclosures.



Why Choose ETP Grade Copper?

ETP grade copper is recognized for its exceptional purity (99.9%) and superior electrical performance.

- **Maximum Conductivity**: Boasts a minimum conductivity rating of **101% IACS** (International Annealed Copper Standard), providing the lowest possible resistance path for fault currents.
- **Corrosion Resistance**: Naturally forms a protective oxide layer (patina), ensuring the grounding system remains robust for decades, even in moisture-prone underground environments.
- **Thermal Efficiency**: Excellent thermal conductivity helps dissipate heat rapidly during high-voltage surges, preventing localized system damage.

Critical Applications in High-Voltage Labs

- **Faraday Cages & EMI Shielding**: It is the "gold standard" for blocking external electromagnetic and radio-frequency interference (EMI/RFI), keeping background noise levels low for sensitive partial discharge (PD) testing.
- **Equipotential Grounding**: Used as a high-precision grounding mat to eliminate voltage gradients, ensuring the entire test floor stays at the same potential to protect personnel from electric shock.
- **Noise Filtering**: High-purity copper acts as a filter in the lab floor, significantly reducing measurement noise generated during transformer or cable testing.

Fine Mesh Variant — Used in EMI Shielding & Faraday Cage Applications

1: CHEMICAL ANALYSIS:	SPECIFIED:	UOM:	RESULT:		
(a) Copper(any silver present to be counted as copper)	99.9(min)	%	99.90-99.95		
(b) Lead	0.005(max)	%	0.00092		
(c) Bismuth	0.001(max)	%	0.00024		
(d) Total impurities(excluding silver & oxygen)	0.030(max)	%	≤0.012		
2: DIMENSIONS:			(1)	(2)	(3)
(a) Width	1250(+/-1.00)	mm	1249	1250	1251
(b) Thickness	1.95(+/-0.02)	mm	1.93	1.95	1.96
(c) Length	1250(+/-2.00)	mm	1248	1250	1251
3: Physical/Mechanical Properties:					
(a) Hardness	45-53	VPN	48	50	52
(b) Ultimate Tensile Strength	200-250	N/MM2	214	219	222
(c) Elongn on Gauge Length of 50mm	>35	%	42	43	44
(d) Yield Strength	----	N/MM2	----	----	----
(e) Bend Test	OK	----	OK	OK	OK
(f) Electrical Resistivity	0.01777(MAX)	Ω/mm²/m	0.01761	0.01761	0.01761
(g) Electrical Conductivity	99.25(min)	%IACS	99.8	99.8	99.8
(H) Surface Finish	Bright,Smooth & free from strains	Visual	OK	OK	OK

Certified that the sample COPPER SHEET ETP-SOFT confirm to party specn under BIS certificate licence NO 9100207004 as per IS 1897:2008

Lab Incharge

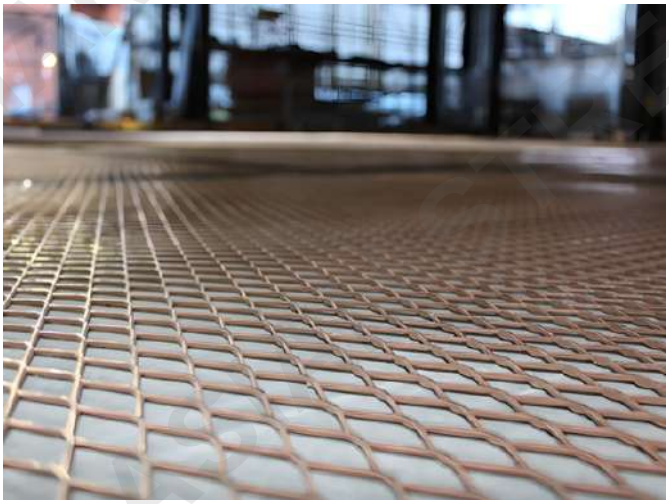
Date of Performance: 31/01/2026 **Test Conducted:** Electrical Conductivity **Test Method:** ASTM E 1004

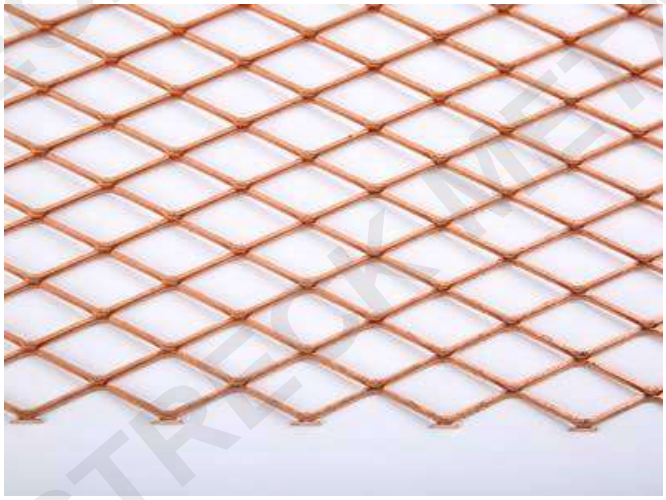
Equipment: Conductivity Meter, **Model:** QCM-1, **Sr. No.** QMPL -020052025

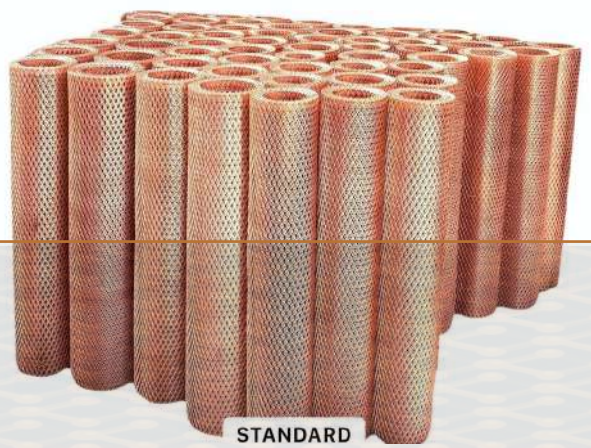
Sr. No.	Sample Identification	Observed Readings (% IACS)					Average (% IACS)
		Readings					
		1	2	3	4	5	
1	Copper Sheet – 2.0 mm thick.	99.4	100.3	99.5	102.6	100.7	100.5

Test Report observed values based on the sample receipted for testing.

Note: Sample directly submitted by customer.







Large Panel View — Suitable for Façade, Flooring & Architectural Use

Asian Streck Metals — A Legacy Since 1962

One of the world's oldest and most experienced manufacturers of Copper Expanded Metal. Over six decades of precision manufacturing, quality craftsmanship and unwavering commitment to customer satisfaction have made us a trusted name in both Indian and international export markets.

ISO 9001:2015
URS · NABCB · QM016

IS 1897:2008
Bureau of Indian Standards

IS 412:1975
Bureau of Indian Standards

Copper Expanded Metal — produced by simultaneously slitting and stretching a solid copper sheet — delivers a unique blend of electrical conductivity, structural strength and versatility found in no other metallic mesh product. Asian Streck Metals has been at the forefront of this technology since its founding in 1962.

Manufacturing Process

Starting with high-purity ETP/C110 grade copper sheet (≥ 99.9% Cu), a reciprocating knife die simultaneously slits and stretches the sheet in a single pass — forming a continuous diamond lattice with no welding, no joints and no material waste. Panels are supplied in Standard (raised) or Flattened form as required.

Standard Technical Parameters

Parameter	Standard Range	Unit
ETP Copper Purity	≥ 99.90 – 99.95	%
Sheet Thickness	0.5 – 6.0	mm
Strand Width	0.8 – 8.0	mm
LWD (Long Way Diamond)	10 – 100	mm
SWD (Short Way Diamond)	5 – 60	mm
Open Area	40 – 75	%
Electrical Conductivity	≥ 99.25 (min 101 IACS)	%IACS
Tensile Strength	200 – 250	N/mm²
Hardness (Vickers)	45 – 55	VPN
Panel Width	Up to 1,250	mm
Panel Length	Up to 2,500	mm

Available Types

- **Standard (Raised) Mesh** — 3D diamond profile, greater rigidity.
- **Flattened Mesh** — smooth surface for flooring and facades.
- **Micro Expanded Foil** — 0.05–0.4 mm for aerospace LSP.
- **Custom Openings** — hexagonal/round for decorative or filtration use.

Why ETP Grade Copper?

- **101% IACS Conductivity** — best-in-class electrical performance.
- **Natural Patina** — self-forming oxide ensures decades of protection.
- **Zero Waste Process** — slit-and-stretch is virtually material-lossless.
- **Antimicrobial** — biostatic properties for medical & food environments.

Industry Applications at a Glance

Electrical & Energy
Earthing/grounding grids, busbar covers, battery current collectors, solar components

High-Voltage Labs
Faraday cage walls/floors/ceilings, equipotential mats, EMI/RFI shielding enclosures

Aerospace & Defence
Lightning-strike protection (LSP) for composite aircraft wings and wind-turbine blades