

PURL-EON

210–550 MPa Yield Strength

POWERED BY:
NON-OX GALVANIZING COIL



ABOUT US

Introduction

Sambhv Steel Tubes Limited is one of India's leading manufacturers of electric resistance welded ("ERW") steel pipes and structural tubes (hollow sections), and also among the select few producers of stainless steel coils. As one of India's leading backward integrated manufacturers of steel pipes and tubes and stainless steel coils, we control the entire value chain - from raw materials to high-performance tubes and coils, all under one roof.

Strategically located in Raipur, Chhattisgarh - a state renowned for its rich mineral resources, Sambhv Steel Tubes is rapidly advancing to make a significant contribution to India's infrastructure growth.



Key Highlights



Integrated Manufacturing

From sponge iron to HR coils, Hr coil to ERW pipes to GP products – all made in-house.



Non-OX Galvanizing Line

India's first dedicated line for precision coil-based GP solutions.



100,000 MTPA GP Pipe Capacity

Trusted by dealers, fabricators & infra brands across India.

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SARORA RAIPUR

Founding step towards excellence

Our plant is an integrated facility to manufacture sponge iron, generate captive power, make blooms/slabs, HR coils and ERW pipes & tubes utilizing the latest technology, stringent ISO quality control and an unwavering commitment to customer satisfaction



At Sambhv, we believe that strong steel begins with a strong culture.

Our workplace is built on values of safety, transparency, and continuous improvement. With skilled technicians, engineers, and process experts working in harmony, Sambhv fosters a culture of innovation and ownership.

Safety First. Process Driven. People Focused.

KUTHREL, RAIPUR

Stepping up Innovation towards excellence

Key Highlights:

- Specializes in high-value products like:
 - GP Coils
 - Pre-Galvanized Pipes
 - SS HRAP & CR Coils
- Ultra-modern production lines with advanced slitting & finishing systems
- Supports industries like solar, construction, automotive, and infrastructure
- Proximity to Unit 1 ensures shared logistics, faster dispatch, and lean operations
- Built with focus on scalability and next-gen steel innovation



UNIT 2

INTRODUCING GP COIL

Built from Ore. Born for Strength.



Sambhv GP Coils are manufactured using Continuous Galvanizing Lines (CGL), based on Non-Oxidation (Non-Ox) technology, ensuring exceptional surface finish, superior corrosion resistance, and consistency across each slit. Designed to meet a wide range of industrial and

fabrication needs, our coils support applications in structural components, ducting, shutters, solar mounting systems, purlins, electrical enclosures, HVAC systems, cable trays, automotive panels, and general fabrication.

PRODUCT FEATURE



Easy welding ensures durable bonds.



The smooth zinc finish makes painting easy, even without primer.



These coils are easy to install, strong, and customizable.

TECHNICAL SPECIFICATIONS

Width Range:

Up to 610 mm (multi-slitting options available: 60 mm to 610 mm)

Thickness Range:

0.5 mm to 3.0 mm

Coil Weight:

Up to 12 MT

Coating:

80 GSM to 275 GSM

Finish Options:

Spangled and Non-Spangled

YST:

Wide range of YST standards from 250 MPa to 550 MPa

Slitting:

Slitted coil customized sizes from: 60 - 610mm etc.)

**PERFECT SHAPE.
NO WRINKLES.
PROVEN RESULTS
IN CRITICAL
FABRICATION
PROCESSES.**



POWERED BY:

NON-OX GALVANIZING

Equipped with high-quality furnaces and world-class automation for unmatched precision

INTRODUCING PURL-EON

210-550 MPa Yield Strength

Purl-Eon by Sambhv is a breakthrough in the galvanized steel category – a next-generation, high-performance GP coil engineered for modern infrastructure. Developed with advanced technology and a high-purity zinc coating, Purl-Eon ensures strength, precision, and longevity in the most demanding environments.

Why Purl-Eon?

- First branded GP Coil from the house of Sambhv
- Manufactured using Non-Ox Technology for superior finish
- Designed for architectural-grade durability and aesthetic appeal
- Engineered with tight tolerances and consistent YST for structural safety
- Ideal for high-end fabrication, solar applications, and structural projects
- Batch-tested & traceable: Every coil undergoes multiple tests and is batch-labeled for end-to-end traceability
- Salt spray resistance >200 hrs: Ensures long-term corrosion protection in coastal & industrial zones
- Uniform zinc coating (70-350 GSM): Achieved through Air Knife & Spangle control for consistent surface finish
- Trusted for solar & PEB structures: Preferred by fabricators for C/Z purlins,



SAMBHV C PURLIN



SAMBHV Z PURLIN

SAMBHV GP COIL FOR C PURLIN

Shaped for Support. Styled for Stability.

Sambhv GP Coils are ideal for C Purlins such as walls, floors, cladding, and PEB buildings. With compact design, rigid stability, long-span utility, and precision engineering,

they offer excellent tolerance, zinc coating, and bendability. these are also used in trusses, frames, trays, racks, studs, and solar supports for light and heavy structures.

Why Sambhv C Purlins?

Coating Range:
80 to 350 GSM

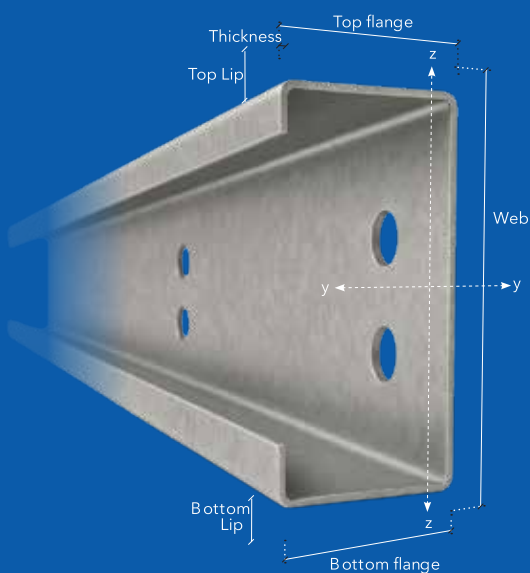
Yield Strength:
230 to 350 MPa

Hardness Range:
50 - 80 HRB

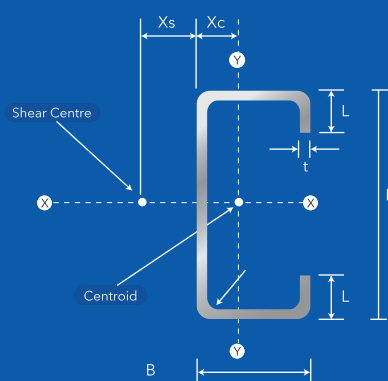
Profile Compatibility:
Mini, medium & large (bright and top quality shining surface)

Thickness Range:
1.5 to 3.0 mm

Coating Control:
Uniform zinc deposition on both sides for smooth punching



DIMENSIONS & PROPERTIES



SAMBHV GP COIL FOR Z PURLIN

Strength in Overlap. Precision in Performance.

Sambhv GP Coils offer high strength, uniform coating, and easy workability, making them ideal for Z Purlins, PEB buildings, and industrial sheds.

With custom punching, durable finish, tight tolerances, superior lapping, precision fit, and long life, they ensure smooth & high-volume production.

Why Sambhv Z Purlins?

Equal coating distribution on both surfaces along full coil

Thickness Range:
1.5 mm to 3.0 mm

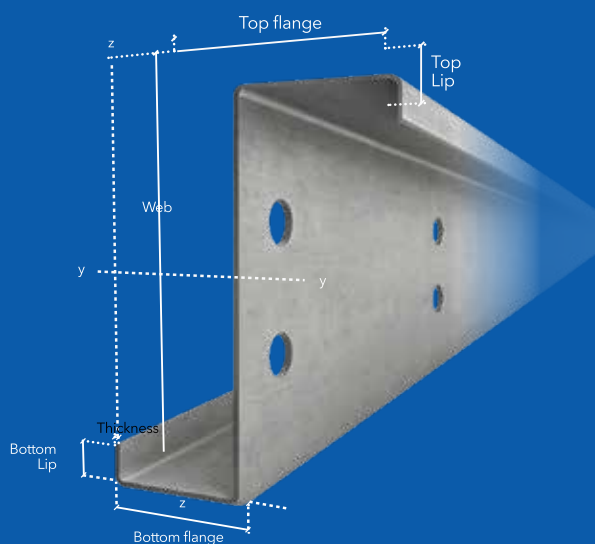
Width Range:
295/ 310/ 335/ 350/ 410/ 425mm

High Slot Accuracy:
Ideal for automated punching and overlapping

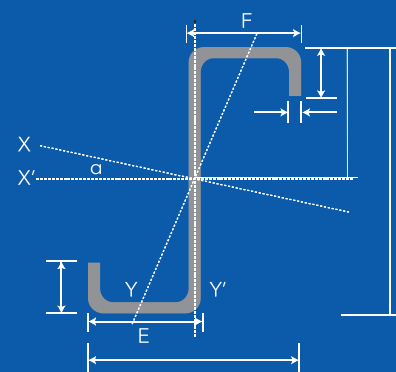
Strength Assurance:
YST up to 550 MPa; TST &
Hardness verified batch-wise

Bending test
0T /1T / 2T Pass

Waviness
Min. i - Value (20-35)
No Waviness



DIMENSIONS & PROPERTIES



SHUTTER-GUARD

IS NOT JUST A
PRODUCT—IT'S SAMBHV'S

promise of quality, consistency, and confidence in
every roll.

INTRODUCING SHUTTER-GUARD

**Precision Slits. Unmatched Strength.
Trusted for Shutter Applications.**

Sambhv's Shutter-Guard is the go-to choice for rolling shutter makers—precision-slit, perfectly coated, and built for flawless bending. With a smooth finish and trusted performance, it's the fabricator's favorite across India.

What Makes Shutter-Guard Different?

Zinc Coating:

80 to 120 GSM

Size Range:

0.80 to 1.00 mm
thickness/1.10/1.20

Yield Strength:

250 MPa (customizable as per

requirement)

Spangle Options:

Mini, Medium & Large (bright and
consistent shine)

Form:

Supplied in slit coil form – sizes
like 114, 130, 150 mm as per



SAMBHV SHUTTER-GUARD

SAMBHV COIL & PIPE FOR SOLAR STRUCTURE APPLICATIONS

SAMBHV GP PIPES FOR SOLAR STRUCTURE

Sambhv manufactures high-strength GP Pipes that are ideal for various solar structure installations. Our pipes meet critical performance standards, ensuring strength, corrosion resistance, and dimensional accuracy.

Available Pipe Types & Specifications

Round Pipes

Sizes: 25, 40, 50, 65, 80 NB

Thickness: 1 to 3 mm

Rectangular Pipes

Sizes: 26x13, 40x20, 50x25,
60x40, 75x25, 80x40, 96x48
,50x40

Thickness: 1 to 3 mm

Square Pipes

Sizes: 15x15, 20x20, 25x25,
30x30, 38x38, 40x40, 50x50,
60x60, 72x72 mm

Thickness: 1 to 3 mm



SAMBHV GP COILS FOR SOLAR STRUCTURE

Sambhv provides precision slit GP coils for solar structure components such as Stud Channels and C-Channels. Our coils are delivered in ready-to-use form, with slitting and coating customized as per application needs.

Key Applications & Features

Width Range:

Up to 650 mm (multi-slitting options available: 40 mm to 650 mm)

Thickness Range:

0.5 mm to 3.0 mm

Coil Weight:

Up to 12 MT

Coating:

80 GSM to 275 GSM

Finish Options:

Spangled and Non-Spangled

YST:

Wide range of YST standards from 250 MPa to 550 MPa

Slitting:

Slitted coil customized sizes from: 60 - 610mm etc.)

Supplied in slit coil form - press and machine ready



Sambhv's in-house GP Coil and Pipe manufacturing ensures traceability, strength, and consistency – making it the ideal material choice for solar mounting structures, rooftops, and ground installations.

QUALITY TEST



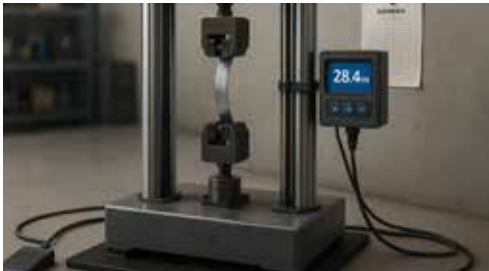
Humidity Test

Ensures the product's resistance to moisture and humid environments over extended durations.



Salt Spray Test

Simulates harsh coastal or industrial conditions to evaluate corrosion resistance. (Purl-Eon: >172 | Conventional GI: <120 Hrs)



YST (Yield Strength Test)

Measures the minimum stress at which material begins to deform permanently, ensuring structural integrity.



Bend Test

Assesses flexibility and the profile's ability to withstand bending without cracking or flaking.



Chrome & Zinc Coating Test

Checks the consistency and adhesion of chrome passivation layer applied post galvanization.



Spectrometer Test

Spectrometer testing at Sambhv's plant ensures accurate composition and consistent quality.



Hardness Test

Confirms material hardness to ensure resistance against wear and mechanical damage.



TST (Tensile Strength Test)

Determines the maximum load the profile can handle before failure – a critical factor in structural applications.

PURL-EON GP COIL PRODUCT HIGHLIGHTS

Parameter	Purl-Eon GP Coil (by Sambhv)
Raw Material Source	Top quality HR coil processed through Sambhv's integrated plant for consistent purity
Surface Finish	Bright, smooth finish with high surface clarity – achieved via advanced Non-OX galvanizing line
Coating Uniformity	Highly uniform dual-side zinc coating using automated galvanizing and air knives
Zinc Coating Range	Customizable from 80 GSM to 275 GSM based on end-use (shutter, purlin, ducting, solar, etc.)
Salt Spray Resistance	Tested to withstand >200 hours in salt spray conditions, suitable for coastal, humid environments
Thickness Accuracy	AGC-controlled cold rolling ensures dimensional consistency with ± 0.015 mm precision
Workability	High formability with clean bends, smooth slit edges, and press-friendly surface
Testing & QC	Over 8 quality checks per batch – includes YST, TST, bend, hardness, salt spray, and coating tests
Dimensional Tolerance	Maintained within ± 0.02 mm across width and thickness for repeatable fabrication results
Production Traceability	Every coil is batch-coded and process-logged from HR to final bundle for audit and quality control
Packaging Format	Delivered in ready-to-use slitted form (e.g., 114mm, 130mm, 150mm) - bundled, strapped, and labeled
Lifecycle	Engineered for long-term performance even under aggressive weather and industrial exposure
Innovation Edge	Ore-to-Coil model: Fully backward-integrated production with in-house control at every stage

MANUFACTURING PROCESS



Step 1

HR COIL PROCUREMENT

Sambhv sources premium hot rolled coils from JSW, JSPL, TATA Steel, and NMDC. These coils are selected in Grade-1, CR-3, CR-4 ensuring strength, purity, and mechanical consistency.

Step 2

PICKLING LINE - 5-STAGE PRECISION CLEANING

5-stage HCl pickling with 6-stage rinsing

- Removes rust, mill scale, and impurities
- Produces clean, bright, patch-free surface for cold rolling
- Acid section Operates at 70-80°C, and final rinse maintained pH ~7 , to avoid yellow patches on strip surface.
- Line Capacity for input material 1.6-4.0 mm thickness
- Pickling line facilitated with on line oiling for HRAP product.





Step 3

COLD ROLLING MILL (CRM) - PRECISION THICKNESS CONTROL

Sambhav steels having two cold rolling mill.

CRM- Double stand reversible type CRM

- Automatic Gauge Control (AGC) Hydraulic leveller cum tensioner for hr coil shape correction.
- High capacity Plunger for roll bending for shape control of CR Coil.

- CRM rolling range are Thickness: 0.50 to 3.00 mm
- AGC thickness control Tolerance: ± 5 micron

CRM- Single stand cold rolling mill.

- Equipped with AGC with thickness tolerance ± 5 micron.
- High capacity Plunger for roll bending for shape control.

Step 4

UNCOILING & DEGREASING

CGL is double uncoiler for smooth transitions. Degreasing section is to remove oil from CR Surface to help better Zn coating. Double brass roll are help to remove dry oil layer. Degreasing section use hot DM water (60-65°C) removes oil and impurities on most effectively.





Step 5

FURNACE SECTION

Advanced Non-OX furnace with DFH, RTH, and Jet Cooling and HBR. Temp ranges - DFH- up to 1200, RTH- 800 c JCF- 550, HBR- 450 to 500. Furnace is effective for Heating and Soaking of metal for complete annealing. CGL Furnace could produce 210mpa YST to 550mpa as per requirements. Complete Furnace section under Nitrogen and Hydrogen atmosphere. No any Oxygen presence inside the furnace to avoid metal oxidation. DFH section is Open LPG fired to clean the surface impurities.



Step 6

ZINC POT & AIR KNIFE

- CGL have a capacity of 100 mt Zn Pot. Molten zn and alloys are daily tested twice. Annealed strip is zinc-coated, then calibrated by air knives. Top quality of air knife are help to Controls Zn coating on both surface. CGL could be able to produce Coating: range 70-350 GSM
- Balanced top/bottom layers and maintain through out the length
- With help of air knife and pot chemistry we able to supply on Spangle: mini, medium and large



- Zinc chemistry checked twice daily

Step 7

QUENCHING & CHROMIC TREATMENT

The coated strip is quenched with DM water, double dipping to control strip temp. Liquid passivation used to cover all strip surface. Dip type passivation maintained (18-21 mg/m²). daily twice checks ensure rust resistance, gloss, and protection from defects



Step 8

RECOILING

- Heavy-duty recoiler ensures uniform, tension-controlled winding with perfect coil alignment
- Integrated side trimmer provides clean edges and precise strip width for downstream processing

Step 9

READY FOR DISPATCH

Each coil is securely packed with HDP, PCI, edge protectors, wooden supports, and steel strapping. This multi-layered packaging protects against moisture, edge damage, deformation, and scratches during storage and transit.



ACKNOWLEDGEMENTS AND CERTIFICATIONS

Sambhvi Steel Tubes Ltd. has garnered several prestigious acknowledgements and certifications both nationally and internationally.



ISO 50001:2018



ISO 45001:2018



ISO 14001:2015



Conforming to
EN 10255:2004+A1:2007



ISO 9001:2015



Conforming to
EN 39:2001



Conforming to
EN 10025-1:2004



Conforming to
EN 10219-1:2006

APPROVED BY



Gov. Maharashtra
MHADA



Gov. Delhi
PWD



Gov. Uttar Pradesh
RAJIKYA NIRMAN NIGAM



Gov. Delhi
CPWD



Gov. Madhya Pradesh
HOUSING BOARD



NPCC



CG Housing Board

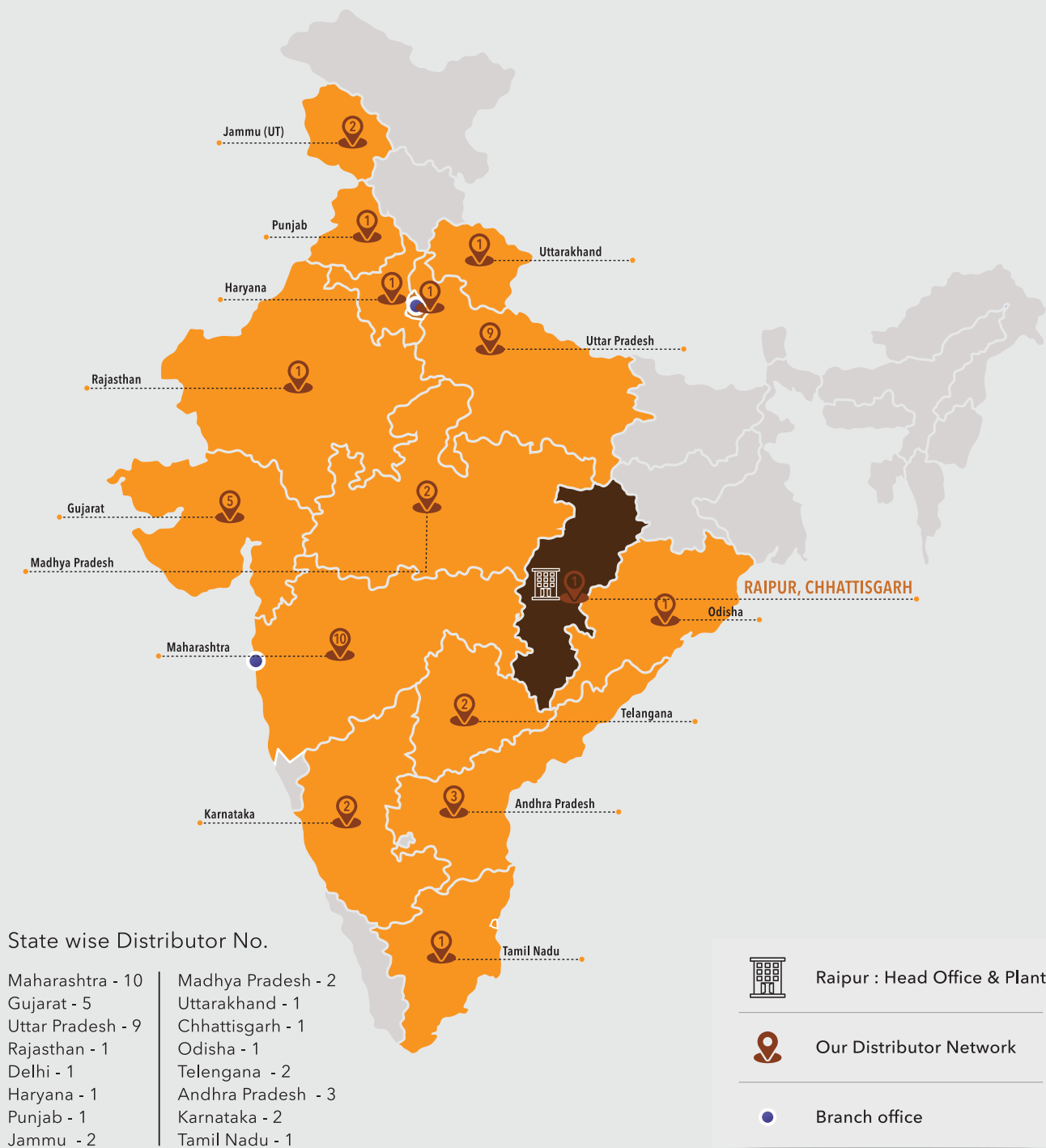


Raipur Development
Authority



MPPWD

A NATIONAL FOOTPRINT



43
DISTRIBUTORS



600+
DEALERS

SAMBHV[®]

GP PIPES & COILS

सब संभव है



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