

# Metal-Asia

## Commercial Proposal for Supply

### PPGL Steel Coil Export Packaging: Seaworthy Packing Standards from China



*Seaworthy packing standard for steel coil export*

#### Executive Summary

Metal-Asia.pw offers professional supply of PPGL (Pre-Painted Galvalume) steel coil with comprehensive protective packaging fully compliant with international Seaworthy Packing standards. Packaging is a critical determinant in preserving the integrity of the polymer coating system throughout extended ocean and overland transit, particularly under conditions of severe temperature fluctuation and high humidity encountered on routes from China to European, Middle Eastern and Southeast Asian destinations.

Our operational data indicates that approximately 30% of buyer claims arising from direct Chinese mill purchases are attributable to coating damage caused by inadequate or non-compliant packaging: torn films, moisture ingress, mechanical impact from slings or adjacent coils. Metal-Asia.pw eliminates these risks through rigorous packing-line supervision at the mill, photographic and video documentation of every stage, and the deployment of reinforced packaging configurations where required.

#### Multi-Layer Seaworthy Packing System

The export standard for PPGL coil stipulates a minimum of three functional protective layers, each performing a specific engineering function.

#### Coil Packaging Structure

Packaging Layer	Material	Protective Function	Technical Parameters
Inner Wrap	Moisture-resistant kraft paper (60 – 120 g/m <sup>2</sup> ) or VCI film (Volatile Corrosion Inhibitor, 80 – 150 μm)	Condensate absorption, vapour-phase corrosion inhibition, primary surface protection	VCI protection duration: up to 24 months
Middle Barrier	Polyethylene film (PE, 100 – 200 μm) or	Total hydro isolation, protection from dust, salt	Heat-shrink wrapped for hermetic seal

Packaging Layer	Material	Protective Function	Technical Parameters
	laminated composite barrier	spray and chemical vapours	
Outer Shield	Galvanised steel sheet (GI, 0.4 – 0.6 mm) or heavy-duty fibreboard	Mechanical protection against impact, compression from adjacent coils, sling abrasion and handling equipment	GI sheet covers 100% of lateral surface. Strapping: 4 longitudinal + 4 circumferential steel bands
Edge Protection	Metal rings (ID/OD), corner profiles, plastic or steel protectors	Prevention of edge coil crush, protection of inner diameter from deformation	Galvanised steel rings 50 – 80 mm wide. Reinforced corner guards
Pallet Base	ISPM 15 certified fumigated timber pallet or steel pallet	Fork-lift handling compatibility, prevention of ground moisture contact	Dimensions: 1,200 × 1,200 mm or 1,400 × 1,400 mm. Load capacity: up to 10 tonnes

### Protective Component Detail

Component	Purpose	Available Options	Recommendations
VCI film	Active corrosion protection via inhibitor vapour emission	VCI stretch film, VCI shrink bags, VCI kraft paper	Mandatory for ocean transit exceeding 21 days
Kraft paper	Excess moisture absorption, scratch prevention	Water-repellent, laminated, VCI-impregnated	Minimum 80 g/m <sup>2</sup> for extended storage
Steel strapping	Package integrity under vibration and shock	Galvanised bands 19 – 32 mm wide, tension 500 – 800 N	Minimum 4 longitudinal + 4 circumferential bands
Outer GI sheet	Point-load distribution, puncture resistance	GI sheet 0.45 – 0.60 mm, painted sheet, reinforced fibreboard	Never omitted for PPGL – soft polymer coating is easily damaged
Labelling	Identification, traceability, handling warnings	Moisture-resistant labels, barcodes, QR codes, colour markers	Mandatory: batch number, weight, dimensions, coating type, colour, production date

### Coil Orientation Methods for Transport

<b>Orientation Type</b>	<b>Description</b>	<b>Advantages</b>	<b>Limitations</b>	<b>Recommended Transport Mode</b>
Eye to Sky (vertical)	Coil stands on edge, bore vertical	High container fill density, crane unloading compatible	Higher tip-over risk on uneven surfaces, pressure on lower edge	20 ft container (up to 25 – 28 tonnes), crane discharge
Eye to Wall (horizontal)	Coil lies on side, bore horizontal	Maximum stability, low centre of gravity, fork-lift compatible	Requires more floor area, lower height fill density	Rail freight, road haulage, fork-lift equipped warehouses
Eye to Side (row-on-edge)	Coils arranged in line, bores aligned with direction of travel	Optimal for wagon or flatbed lashing, minimum shift	Requires precise dimensional calculation, professional securing	Covered rail wagons, flatbed trucks

### Standard Loading Parameters

<b>Transport Mode</b>	<b>Payload Capacity</b>	<b>Coil Capacity (standard 5 – 7 t)</b>	<b>Securing Requirements</b>	<b>Transit Time to Europe / Middle East</b>
20 ft FCL container	21.5 – 28 tonnes gross	4 – 6 coils	Timber chocks, steel lashing straps, anti-slip pads	28 – 35 days (sea to Baltic / Mediterranean / Black Sea)
40 ft HC container	26 – 28 tonnes gross	6 – 8 coils	Eye to Sky vertical, double-stacked for widths ≤ 600 mm, spreader bars	28 – 35 days
Rail covered wagon	66 tonnes (full wagon)	9 – 12 coils	Rail-rated lashing straps, timber chocks, anti-rollback wedges	18 – 25 days (via Central Asia corridor)
Road truck (Euro trailer)	20 – 24 tonnes	3 – 4 coils	Low-loader trailers, professional chain securing	12 – 18 days
Open flatcar	71 tonnes	10 – 14 coils	Mandatory tarpaulin or weatherproof cover	18 – 25 days

### Risk Register and Control Measures

<b>Damage Risk</b>	<b>Root Cause</b>	<b>Metal-Asia.pw Control Measure</b>
Coating scratches and chips	Poor strapping, missing outer GI sheet, sling abrasion	Mandatory outer GI sheet, strap tension verification, photographic loading evidence
Corrosion (rust spotting)	Moisture ingress through compromised film, internal condensation	VCI film, hermetic heat-shrink, silica gel desiccants, ventilation ports
Edge crush damage	Insufficient edge protection, drop during unloading	Metal rings on ID and OD, reinforced corner protectors, handler briefing documentation
Coil telescoping	Severe braking, transit shock, insufficient coil tension	508 mm ID specification (rigid mandrel effect), reinforced strapping
Storage fade	UV exposure during open storage, container overheating	Tarpaulin cover for open transport, covered warehouse priority, minimise port dwell time

## Services Provided by Metal-Asia.pw

Metal-Asia.pw delivers integrated procurement solutions from China, including tender application support under public procurement legislation (44-FZ and 223-FZ) and government defence contracts (GOZ). Our full-service offering encompasses:

- [NDT Quality Control](#) — ultrasonic testing, radiographic inspection, magnetic particle and penetrant testing.
- [Comprehensive Metals Analysis](#) — spectrometry, chemical composition determination, mechanical testing.
- [Integrated Engineering Systems](#) — material selection for specific projects, engineering calculations and technical consultations.
- [Coating and Alloy Verification](#) — dry-film thickness measurement, adhesion testing, hardness and corrosion resistance assessment.

## Why Metal-Asia.pw vs. Direct Mill Procurement

<b>Criterion</b>	<b>Direct Mill Purchase</b>	<b>Procurement via Metal-Asia.pw</b>
Packing consultation	Not provided; standard template applied	Route-specific calculation: climate, transport mode, budget optimisation
Loading 3D modelling	Not available	Available for large shipments; container count optimisation
Packing quality supervision	Random or absent	Photo / video of every layer, pre-seal checklist
Cargo insurance	Self-arranged or absent	All-risks marine cargo insurance through partner programmes
Preservation claims	Practically unenforceable	End-to-end claims management including insurance liaison

Criterion	Direct Mill Purchase	Procurement via Metal-Asia.pw
Minimum order volume	25 – 50 tonnes per specification	From 5 tonnes; multi-buyer cargo consolidation

## HS Codes for Customs Clearance

HS Code	Description	Notes
7210.70.1000	Flat-rolled products $\geq 600$ mm wide, painted or coated with polymers, iron or non-alloy steel	Primary code for PPGL coil
7210.70.9000	Other flat-rolled products painted or varnished	For specialised coating types
7225.99.0000	Flat-rolled products of other alloy steel $\geq 600$ mm wide	For alloyed grades
7226.99.0000	Flat-rolled products of other alloy steel $< 600$ mm wide	For slit coils and narrow strip
7210.41.1100	Flat-rolled products plated or coated with aluminium-zinc alloys	For uncoated GL substrate

## Product Gallery: Packaging and Delivery



## Frequently Asked Questions (FAQ)

**Q1:** Is VCI film mandatory for ocean shipment of PPGL? **A:** For ocean transits exceeding 21 days, we strongly recommend VCI film or VCI-impregnated kraft paper. This provides active corrosion protection even in the event of micro-breaches in the external barrier. For shorter routes (road, rail), standard PE film hydro-isolation is sufficient.

**Q2:** Can we omit the outer galvanised steel sheet to reduce cost? **A:** While technically possible, this is categorically not recommended. Without the outer GI sheet, the soft polymer coating of PPGL is exposed

to puncture risk from slings, abrasion from adjacent coils and mechanical impact. The saving of USD 15 – 30 per tonne is outweighed by rejection risk that is 5 – 10 times the packaging cost.

**Q3:** What are ISPM 15 requirements for timber pallets entering the EU and EAEU? **A:** Timber packaging materials must comply with ISPM 15 (International Plant Protection Convention). Mandatory treatment is either methyl bromide fumigation or heat treatment (HT) with the appropriate IPPC mark. Metal-Asia.pw provides full phytosanitary documentation for seamless customs clearance.

**Q4:** What is coil telescoping and how is it prevented? **A:** Telescoping is the axial displacement of coil wraps caused by shock and vibration in transit. Prevention measures include: 508 mm inner diameter (stiffer mandrel effect), reinforced steel strapping at minimum 600 N tension, and timber or steel end rings.

**Q5:** Can coils be labelled in languages other than English? **A:** Yes. Upon buyer request, we apply bilingual (English / local language) or fully localised labels indicating batch number, steel grade, thickness, width, weight, coating type, RAL colour, production date and conformity certificate. This significantly simplifies warehouse management and customs clearance.

**Q6:** What documents accompany each shipment? **A:** Standard documentation includes: Commercial Invoice, Packing List, Bill of Lading, Certificate of Origin, Mill Test Certificate, conformity certificate (SGS / BV / TÜV when inspection is ordered), and phytosanitary certificate (for timber packaging).

**Q7:** Can multiple colours be consolidated in a single container? **A:** Yes, provided all items share the same coating chemistry (PE, SMP, PVDF) and identical substrate thickness. Each coil is individually colour-coded. Multi-colour consolidation is advantageous for distributors and metalworking manufacturers with diverse product ranges.

**Q8:** How do I verify package integrity upon receipt? **A:** During unloading, check: integrity of steel strapping (no breaks), presence of all end rings, absence of punctures in the outer sheet, and no evidence of water ingress or condensation. If damage is detected, photograph and video the condition before opening the package and notify us immediately. We activate our claims procedure within 24 hours.

## Contact Information

For further information regarding our full range of services, please visit [Metal-Asia.pw](http://Metal-Asia.pw).

### Customer Relations Department:

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*Professional quality control at every stage of the supply chain*

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*Prepared by Metal-Asia.pw Procurement Division. Author: [Milosh Kovachevi](#). This commercial proposal is valid for 90 days from the date of issue.*