

A516GR70 Steel Plate Export Packaging and Industry Guidelines for Third-Party Testing

A516GR70 Steel Plate Export Packaging and Third-Party Inspection Guide

1. Overview of A516GR70 Steel Plate

A516GR70 is a carbon steel plate designed for moderate and low-temperature pressure vessel applications, widely used in industries such as oil, chemical, and power.

2. Export Packaging Standards

2.1 Basic Packaging Types

Bare Packaging: Suitable for bulk shipments and short-distance transport; requires anti-rust treatment.

Bundled Packaging: Steel plates stacked and secured with steel straps, with protective corners at both ends.

Box Packaging: Used for precision instruments; wooden or steel crates are applied.

Pallet Packaging: Facilitates forklift handling; maximum weight per pallet should not exceed 2 tons.

2.2 Rust Prevention Measures

Application of rust-preventive oil or coatings

Wrapping with VCI (Vapor Corrosion Inhibitor) paper or film

Humidity-controlled packaging (including desiccants)

2.3 Marking Requirements

Clear shipping marks (contract number, material grade, dimensions, weight, etc.)

Transport symbols (e.g., "Keep Dry," "Fragile," "This Side Up")

Hazard labels (if applicable, complying with destination country regulations)

3. Key Points of Third-Party Inspection

3.1 Common Inspection Agencies

SGS (Société Générale de Surveillance)

BV (Bureau Veritas)

TÜV (Technischer Überwachungsverein)

CCIC (China Certification & Inspection Group)

3.2 Inspection Scope

Packaging Integrity Check: Ensures packaging can withstand transportation stress.

Rust Prevention Test: Evaluates the effectiveness of anti-corrosion measures.

Dimensional Verification: Confirms plate thickness, width, and length per contract.

Material Composition Analysis: Spectrometry to verify chemical composition.

Mechanical Property Testing: Tensile strength, yield strength, and impact tests.

Non-Destructive Testing (NDT): Ultrasonic, magnetic particle, or dye penetrant inspection for defects.

Inspection Process

1. Buyer and seller agree on inspection standards and scope.
2. Engage a third-party inspection agency.
3. On-site sampling or full supervision during loading.
4. Laboratory testing (if required).
5. Issuance of inspection report.

4. Common Issues & Solutions

1. Issue: Rust formation on plate edges during sea transport.

Solution: Reinforce edge protection with rust-inhibiting edge tape.

2. Issue: Broken steel straps causing loose plates.

Solution: Increase strap quantity and use higher-tensile strapping.

3. Issue: Discrepancies between third-party and factory test results.

Solution: Standardize testing methods beforehand and conduct cross-verification if needed.