

International Steel Grating Standards Reference



This table summarizes steel grating and related product standards from major countries and regions worldwide, including China, the United States, the European Union, the United Kingdom, Japan, Australia, GCC countries, Southeast Asia and India. Use it for quick reference in export quotations, technical discussions and compliance checks.

1. Major National Standards Comparison

Country / Region	Standard No.	Standard Title	Scope
China	GB/T 32857-2016	Steel Gratings for Steel Structures	Product classification, requirements, test methods
China	YB/T 4001.1-2019	Steel Grid Plates - Part 1: Steel Grating	Pressed-welded / press-locked grating specifications
China	GB/T 13912-2002	Metallic Coatings - Hot-Dip Galvanized Coatings	HDG layer technical requirements & test methods
United States	ANSI/NAAMM MBG 535	Metal Bar Grating Standard	National Association of Architectural Metal Manufacturers standard
United States	ASTM A36 / A1011	Carbon Structural Steel Standard	Common structural steel material standards
United States	ASTM A123 / A153	Hot-Dip Galvanized Coatings	Zinc coating specifications for iron and steel products
United States	ADA Standards	ADA Accessibility Standards	Walkway, platform, tread opening & slip resistance requirements
European Union	EN ISO 14122-2	Safety of Machinery - Fixed Means of Access	Industrial platforms, walkways, stairs safety
European Union	EN 10025-2	Hot Rolled Structural Steel Products	Technical delivery conditions for non-alloy structural steels
European Union	EN ISO 1461	Hot-Dip Galvanized Coatings	HDG specifications for iron and steel products
United Kingdom	BS 4592-0:2000+A1	Industrial Type Flooring and Stairs	Industrial flooring, platforms, walkway grating standards
Japan	JIS G 3192	Dimensional Tolerances for Hot-Rolled Steel Shapes	Japanese structural steel shape standards
Japan	JIS A 5506	Grating Panels (Civil Engineering Use)	Japanese civil construction grating standard
Australia	AS 1657-2018	Fixed Platforms, Walkways, Stairways and Ladders	Australian/NZ industrial safety platform standard
Australia	AS/NZS 4680	Hot-Dip Galvanized Coatings	Australian/New Zealand hot-dip galvanizing standard

2. Middle East (GCC Countries)

The Gulf Cooperation Council (GCC) includes UAE, Saudi Arabia, Qatar, Kuwait, Bahrain and Oman. The region's hot, humid and high-salt desert-marine climate demands high corrosion resistance. Most large-scale projects follow US or British standard systems.

Country	Standard System	Typical Project Standards	Special Corrosion Requirements
UAE	Mostly ASTM / ANSI (US)	BS 4592 / ASTM A36 / ADA	HDG ≥ 3.4 mil [85 μ m]; 316 stainless recommended for coastal
Saudi Arabia	SASO + ASTM (US)	SASO GSO / ASTM / ANSI MBG	HDG; abrasion resistance needed in desert areas
Qatar	BS + Qatar Standard (QCS)	QCS 2014 / BS EN ISO	HDG; 304 stainless recommended for premium projects
Kuwait	ASTM + KWI (Kuwait)	ASTM / ANSI MBG 535	HDG; explosion-proof requirements for petrochemical projects
Bahrain	Mixed BS + ASTM	BS 4592 / ASTM	HDG; thicker zinc layer for coastal high-salt zones
Oman	Mostly ASTM, some BS	ASTM A36 / ADA	HDG; high corrosion grade for oil & gas projects

■ GCC notes: ① Premium projects in Dubai, Abu Dhabi and Doha commonly use BS 4592 or ANSI MBG 535; ② Coastal projects must specify salt spray class; zinc thickness often exceeds domestic standards; ③ Large infrastructure projects usually require third-party test reports and Certificate of Origin.

3. Southeast Asia & India

Southeast Asia is experiencing rapid growth in construction and industrial projects, with significant variation in standard systems: Singapore and Malaysia are strongly influenced by British standards, while Thailand, the Philippines, Indonesia and Vietnam use a mix of US, Japanese and local standards. India has a complete IS standard system.

Country	Standard System	Typical Standard Nos.	Key Applications
Singapore	BS + SS (Singapore)	SS EN ISO 14122 / BS 4592	Petrochemical, municipal, premium buildings
Malaysia	BS + MS (Malaysia)	MS 1461 / BS EN	Palm oil mills, petrochemical, municipal
Thailand	TIS + JIS / ASTM	TIS 20-2543 / JIS / ASTM	Food factories, automotive manufacturing, tourism
Philippines	ASTM + PNS	ASTM A36 / ANSI MBG 535	Electronics factories, commercial buildings, mining
Indonesia	SNI + ASTM / JIS	SNI 03-3174 / ASTM / JIS	Nickel smelting, palm oil, shipbuilding
Vietnam	TCVN + CN/JIS mix	TCVN 1656 / JIS / GB	Textile mills, electronics factories, infrastructure
India	IS Standards + EN/ASTM	IS 2062 / IS 4270 / EN ISO	Steel plants, power, ports, petroleum

■ SE Asia & India notes: ① Chinese products are well accepted in Vietnam and Indonesia; GB standards with English descriptions can be provided directly; ② Singapore and Malaysia project documents must be in English, and BS or EN standard declarations are often required; ③ Large projects in India often require BIS certification; ④ HDG is the minimum standard in tropical regions with heavy rainfall and high humidity.

4. Material Grade Comparison Table

Material	ASTM (US)	EN / ISO (EU)	JIS (Japan)	GB (China)	Notes
Mild Carbon Steel	A36 / SS400	S235JR	SS400	Q235B	Most common structural steel
High Strength Low Alloy	A572 Gr.50	S355JR / S355J0	SM490A	Q345B / Q355B	Higher strength for heavy loads
Stainless Steel 304	304 / S30400	1.4301 / X5CrNi18-10	SUS304	06Cr19Ni10 / 304	Most common stainless, good corrosion resistance
Stainless Steel 316	316 / S31600	1.4401 / X2CrNiMo17-12-2	SUS316	06Cr17Ni12Mo2	Molybdenum-alloyed; seawater resistant
Stainless Steel 201	201 / S20100	1.4372	SUS201	12Cr17Mn6Ni5N	Economy grade stainless steel
Hot-Dip Galvanizing	ASTM A123 / A153	EN ISO 1461	JIS H 8641	GB/T 13912	HDG corrosion protection

Note: The standard numbers and cross-references above are for general reference only. For actual projects, always refer to the latest official standard text and project specifications. For project-specific standard matching requirements, please contact our technical team for a tailored solution.