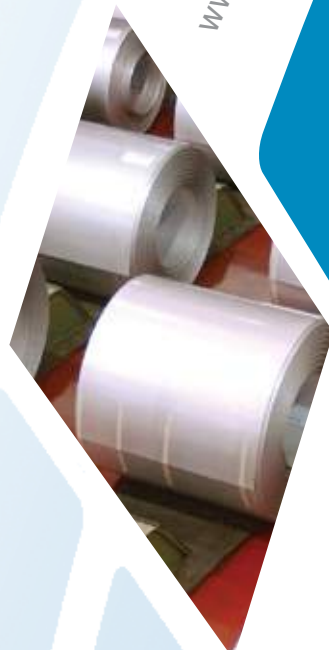


Al-Zn Alloy-Coated

热 镀 铝 锌



Content 目录

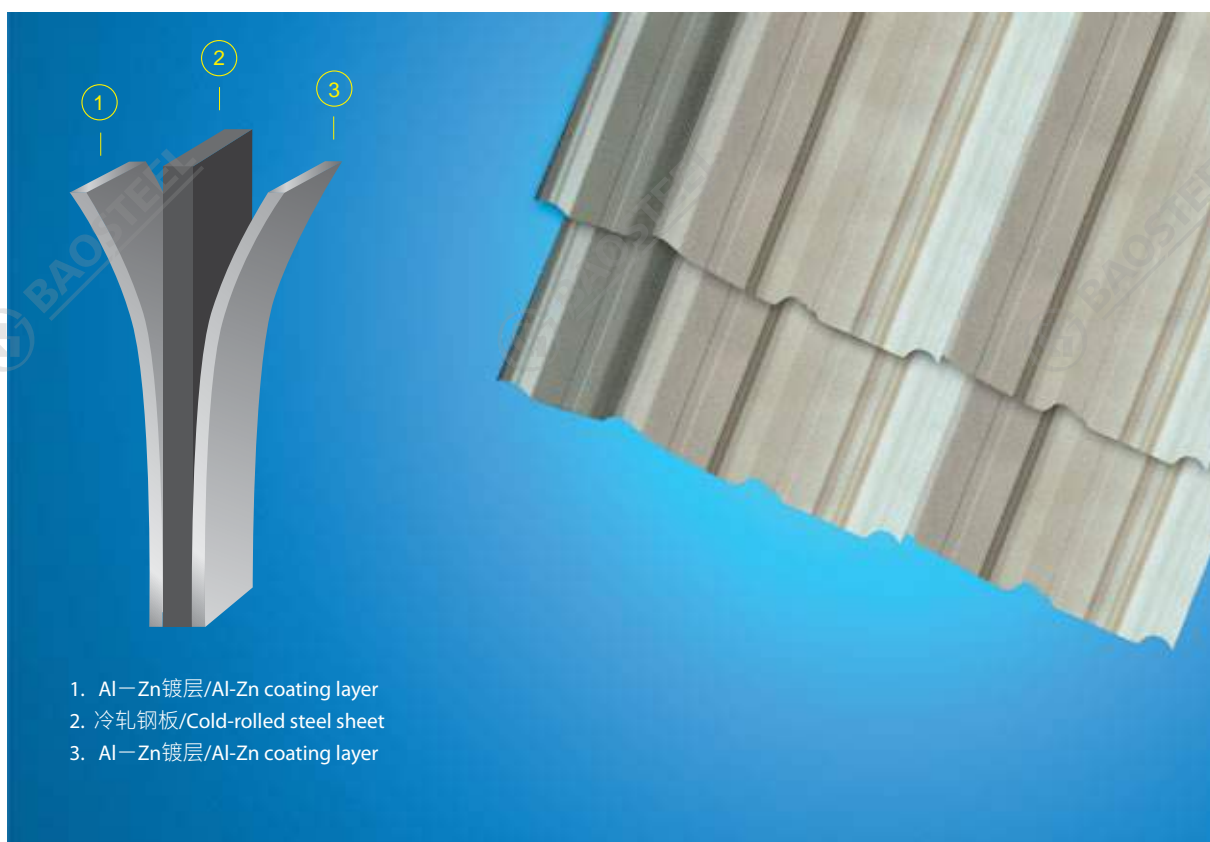
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■ 热镀铝锌钢板的定义

Definition of the hot-dip Al-Zn coated steel sheet

→ AZ镀层为连续热镀生产线上，将经过预处理的钢带浸入熔融铝锌合金溶液中所得到的镀层。熔融铝锌合金溶液中铝的质量百分数为50%~60%，硅的质量百分数为1%~2%，其余成分为锌。融合了Al的物理保护和高耐久性以及Zn的电化学保护特性。此外，在表面呈具有高装饰性的光亮银灰色泽及规则的花纹，并具有浮凸感。

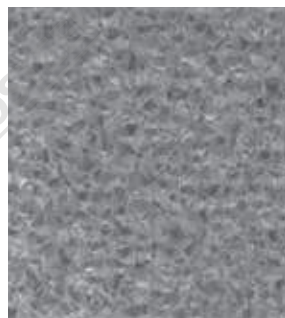
AZ coating is a coating obtained by immersing pre treated steel strip into a molten aluminum zinc alloy solution on a continuous hot-dip coating production line. The mass percentage of aluminum in the molten aluminum zinc alloy solution is 50% to 60%, the mass percentage of silicon is 1% to 2%, and the remaining components are zinc. It enjoys both the physical protective feature and durability of Al and the electrochemical protective property of Zn. And its surface has bright silver color and regular embossed-like figure, which are highly decorative.



正常（不平整）锌花
Normal (non-skinpassed) spangle



平整锌花
Skinpassed spangle



常规锌花
Regular spangle



小锌花
Minimized spangle

Introduction to the hot-dip Al-Zn coated steel sheet

热镀铝锌钢板介绍

■ 热镀铝锌钢板的特性

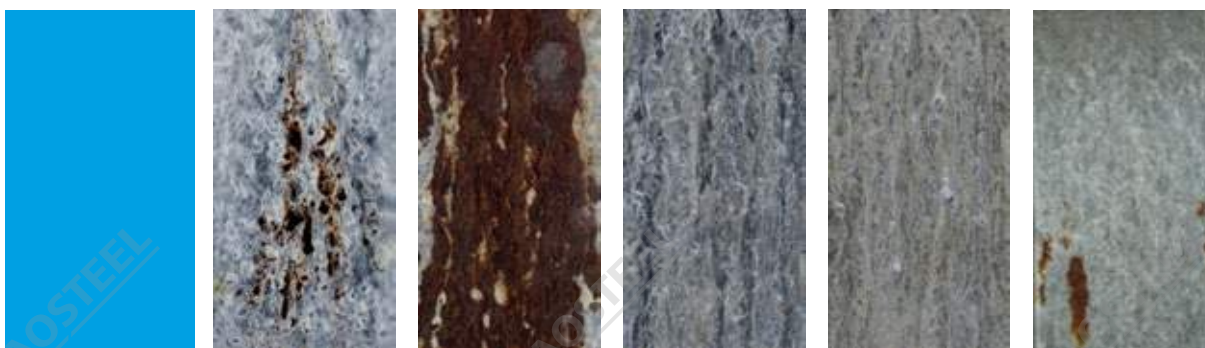
Characteristics of the hot-dip Al-Zn coated steel sheet

宝钢针对产品进行了测试和检验, 实绩数据供参考, 供货保证值按照相应订货标准。

Baosteel has conducted tests and inspections on products, and the actual performance data are for reference. The supply guarantee value is in accordance with the corresponding ordering standards.

盐雾试验

Salt spray test



试验时间 Test duration	240 小时/hours	1200 小时/hours	240 小时/hours	1200 小时/hours	4000 小时/hours
镀层种类及重量 Type & weight of coating	GI, (镀锌/Zn coated) 90/90g/m ²		GL, (镀铝锌/Al-Zn coated) 75/75g/m ²		
试验标准 Standard of test	ASTM B117				

耐蚀性

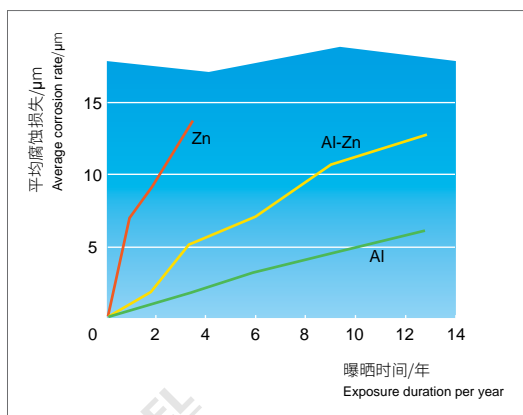
Resistance to corrosion



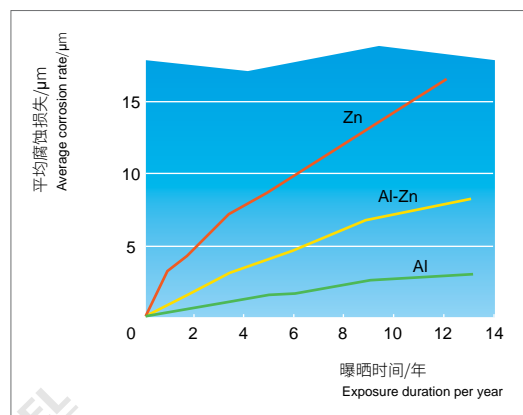
→ 比同等厚度的热镀锌钢板有优异的耐腐蚀性, 使用寿命是普通镀锌钢板的2-6倍。

Al-Zn coated steel sheet has better performance in corrosion resistance than GI sheet of the same thickness and its service life is 2-6 times longer than general GI sheet.

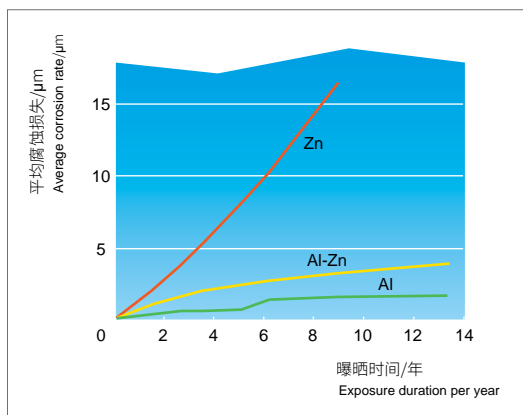
大气曝晒试验 Exposure test



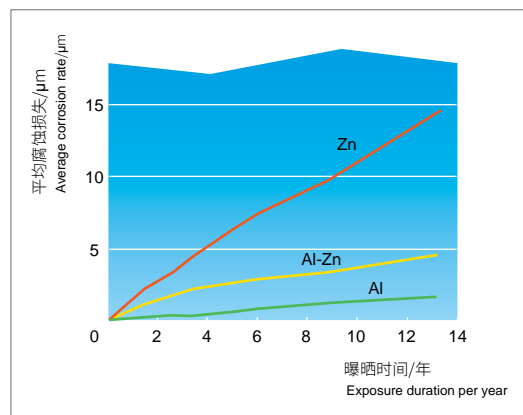
苛刻海洋性气候
Tough marine climate



中等海洋性气候
Moderate marine climate



工业性气候
Industrial climate



乡村气候
Countryside climate

Introduction to the hot-dip Al-Zn coated steel sheet

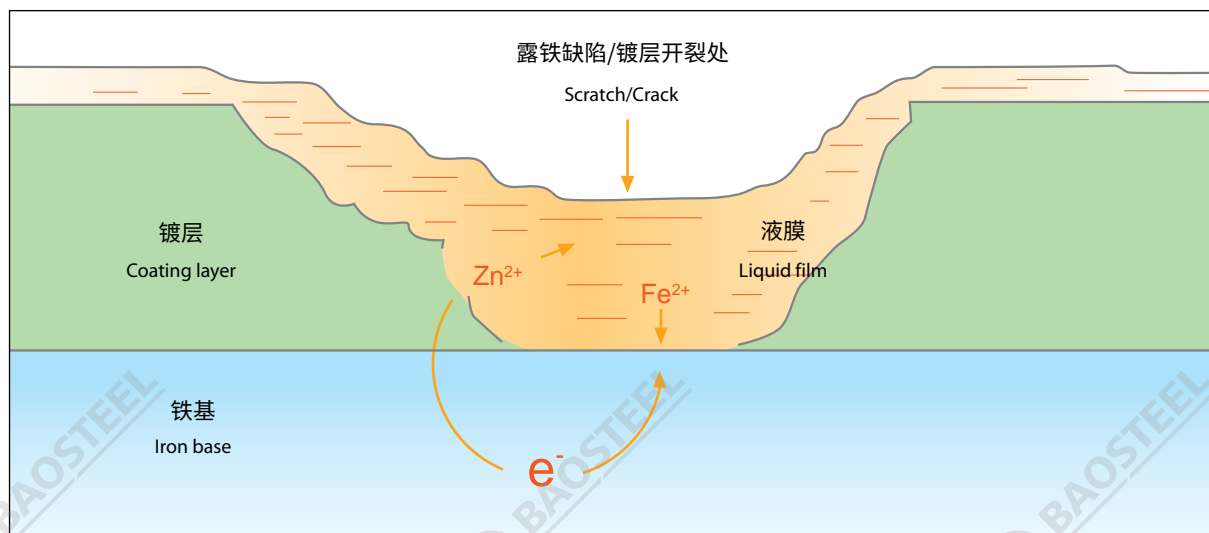
热镀铝锌钢板介绍

■ 热镀铝锌钢板的特性

Characteristics of the hot-dip Al-Zn coated steel sheet

铝锌镀层对钢板具有良好的电化学保护作用

The Al-Zn coated layer has a good electrochemical protection to the steel sheet.



→ 缺陷处发生了电化学保护反应：

阳极反应： $\text{Zn} - 2\text{e} = \text{Zn}^{2+}$ (镀层失去电子，牺牲溶解)

阴极反应： $\text{Fe}^{2+} + 2\text{e} = \text{Fe}$ (铁得到电子，受到保护)

A reaction of electrochemical protection occurs at such where base metal is exposed:

anodic reaction: $\text{Zn} - 2\text{e} = \text{Zn}^{2+}$
(The alloy coating loses electron)

cathode reaction: $\text{Fe}^{2+} + 2\text{e} = \text{Fe}$
(Fe gains electron reaction, being protected)



Outstanding Heat-Insulation,
life always pleasing.

使用中的注意点

Precautions while using

- 碱性介质的使用条件下慎用镀铝锌板。
- 采用镀铝锌建筑的屋面应具有一定坡度，有利于排水，避免腐蚀加剧。
- 避免直接接触湿的水泥和湿的木材、铅、铜、石墨。
- 应尽可能使用切边板而避免在工地现场进行切割。
- 加工、堆放时应防止受潮和高温引起耐指纹膜发黑。
- 用于发泡粘结用途的镀铝锌钢板，在第一次使用时要进行小批量试验，防止粘结性能不良。
- 表面清洁不建议使用酒精类的溶剂进行擦拭、清洗，如需使用请先进行小样试验，避免对表面皮膜造成损伤。
- The hot-dip Al-Zn coated steel should be kept away from the alkaline medium.
- The roof made out of the hot-dip Al-Zn coated steel requires a slope to help drainage and to alleviate corrosion.
- The hot-dip Al-Zn coated steel plate should have no direct contact with foundation concrete, wet wood, steel, lead and graphite.
- Use trimmed plate rather than the plate to be cut plate at job-site.
- While the steel plate is piled and processed, its finger-print proof film should be protected from getting black due to dampness and high temperature.
- If the hot-dip Al-Zn coated steel is used for foaming and bonding application, then, small-lot test is needed for the initial use, in order to prevent the poor bonding.
- If the hot-dip Al-Zn coated steel need to be cleaned, we do not suggest to be cleaned with ethanol. If must be used, small-lot is needed for the initial use, in order to prevent the damage of the coating.

Introduction to the hot-dip Al-Zn coated steel sheet

热镀铝锌钢板介绍

■ 热镀铝锌钢板用途

Application of hot-dip Al-Zn coated steel sheet



建筑业

民用和工业用建筑的屋顶、外墙、彩涂基板、车库门、栅栏、百叶窗、通风管道等

Architecture

Roofs and outside walls of civilian and industrial buildings, garage doors, fencings and window blinds

Architecture

Industrial
Instruments



工业仪表

电控柜、工业冷冻柜、自动售货机等

Industrial Instruments

Electric control cabinet, industrial refrigeration equipment, automatic vending machine



家电业

洗衣机、冰箱、电视机、空调、烤箱、通风系统外覆盖件、防爆带钢、太阳能热水器、电器部件等

Appliances Industry

Outer clad sheets for washing machine, refrigerator, television, air conditioner and ventilation system, explosion-proof strip, solar water heater and appliance parts

Appliances Industry

Other



其他

汽车消音器、尾气管和催化转换器的防热罩、汽车车体底部零件、高速公路标志牌、汽车小喇叭、小五金等

Other

Muffler, heat shields of exhaust pipe and catalytic converter, auto parts & accessories under the frame, signboard in highway

Introduction to the hot-dip Al-Zn coated steel sheet

热镀铝锌钢板介绍

■ 工程案例 Construction Case

高反射
冷屋面



昆明会展中心屋面
宝钢DC51D+AZ150,
0.5MM



普洛斯物流屋面
宝钢S350GD+AZ180,
0.6MM



天津西门子厂房屋面
宝钢S350GD+AZ180,
0.6MM



芜湖美的厂房屋面
宝钢S350GD+AZ180,
0.6MM

■ 产品应用 Applications

超耐蚀
免喷涂

建筑屋面
Architecture



液晶模组背板
Back panel of
LCD module



空调外机底盘
Underpan of
air-condition



冰箱背板
Back panel
of refrigerator



干衣机内胆
Inner tank of
tumble dryer



洗衣机底盘
Underpan of
washing machine



电气柜柜体
Electrical
control cabinet



电气柜面板
Front panel
of electrical
control cabinet



电气柜立柱
Column of
electrical
control cabinet



排气管隔热板
Heat insulation panel
of exhaust system



发动机隔热板
Heat insulation
panel of engine



喇叭
Horn of
the vehicles



散热器管板
Pipe panel
of radiator



Introduction to the hot-dip Al-Zn coated steel sheet

热镀铝锌钢板介绍

耐指纹性能对比

Comparison of anti-finger print

性能 Performance	N5无铬耐指纹 产品-适用户内家电 Non-chromate anti-fingerprint-suitable for household appliances	N有铬耐指纹 产品-适用户外建筑 Anti-fingerprint-suitable for outdoor architecture	NW高耐蚀良加工耐指纹 产品-适用户外家电及建筑 Weathering non-chromate anti-fingerprint-suitable for outdoor appliances and architecture
耐蚀性 Corrosion resistance	△	◎	◎
耐候性 Weathering resistance	◎	○	◎
润滑性 Lubricating property	△	○	◎
抗加工发黑性 Anti-blackening after forming	△	○	◎
耐黑变性 Anti-blackening property	○	△	◎
耐化学介质性 Chemical reagent resistance	◎	◎	◎
环保 Environment protection	◎	含Cr	◎




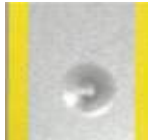











说明:◎ 优秀 ○ 好 △ 一般
Note: ◎ Excellent ○ Good △ Normal

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Baosteel has conducted tests and inspections on products, and the actual performance data are for reference. The supply guarantee value is in accordance with the corresponding ordering standards.

耐腐蚀性 — 中性盐雾

Corrosion resistance-Salt spray test

	平板 Flat panel (240h)	杯突 6mm Erichsen (120h)	划X Cross cut (120h)	杯突 6mm+脱脂后 Erichsen after degrease (96h)	溶剂擦拭后 After wiped with solvent (120h)
高耐蚀良加工GL Weathering non-chromate anti-fingerprint					
普通无铬耐指纹GL Non-chromate anti-fingerprint					
有铬耐指纹GL Anti-fingerprint					




耐候性 Weathering resistance

紫外光老化 QUV









耐黑变性 Anti-blackening property

耐碱 Alkali resistance

高耐蚀良加工GL Weathering non-chromate anti-fingerprint	普通无铬耐指纹GL Non-chromate anti-fingerprint	有铬耐指纹GL Anti-fingerprint
		
无明显变化 Without change $\Delta E^* = 0.52$	发黑 darken $\Delta E^* = 22.7$	发黑 darken $\Delta E^* = 31.5$

耐水煮 Boiling water resistance

高耐蚀良加工GL Weathering non-chromate anti-fingerprint	普通无铬耐指纹GL Non-chromate anti-fingerprint	有铬耐指纹GL Anti-fingerprint
		
500h, 无变化 Without change $\Delta E^* = 1.4$	500h, 表面微白 Change white $\Delta E^* = 4.2$	500h, 表面微白 Change white $\Delta E^* = 9.3$







高耐蚀良加工GL Weathering non-chromate anti-fingerprint	普通无铬耐指纹GL Non-chromate anti-fingerprint	有铬耐指纹GL Anti-fingerprint
		
$\Delta E^* = 0.5$	$\Delta E^* = 1.2$	$\Delta E^* = 2.5$

Introduction to the hot-dip Al-Zn coated steel sheet

热镀铝锌钢板介绍

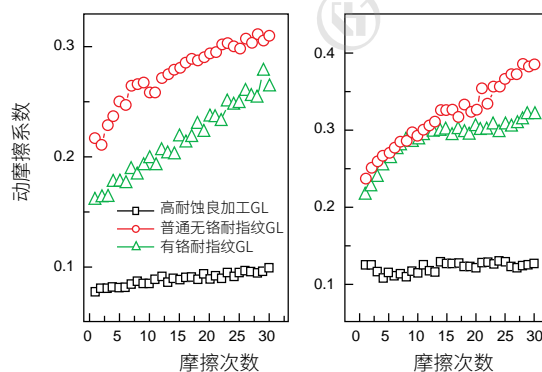
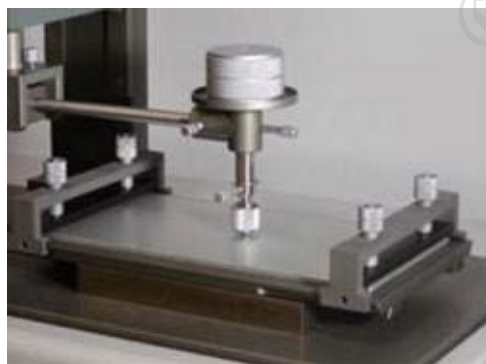
抗加工发黑性

Anti-blackening after forming

	常温 (25°C) Room temperature	高温 (100°C) High temperature
高耐蚀良加工GL Weathering non-chromate anti-fingerprint		
普通无铬耐指纹GL Non-chromate anti-fingerprint		
有铬耐指纹GL Anti-fingerprint		

润滑性——动摩擦系数

Lubricating property-sliding friction coefficient



耐化学介质等其他性能

Chemical reagent resistance and etc

	耐酒精 Anti-alcohol	耐丁酮 Anti-MEK	耐脱脂 Anti-alkali	涂装性 Paintability	导电性 Electroconductivity	环保 Pro-environment
高耐蚀良加工GL Weathering non-chromate anti-fingerprint	◎	◎	◎	◎	△	◎
普通无铬耐指纹GL Non-chromate anti-fingerprint	○	◎	◎	◎	◎	◎
有铬耐指纹GL Anti-fingerprint	◎	◎	◎	◎	◎	×

◎ 优 ○ 良 △ 中 × 差

◎ Excellent ○ Good △ Normal × Bad



产线介绍

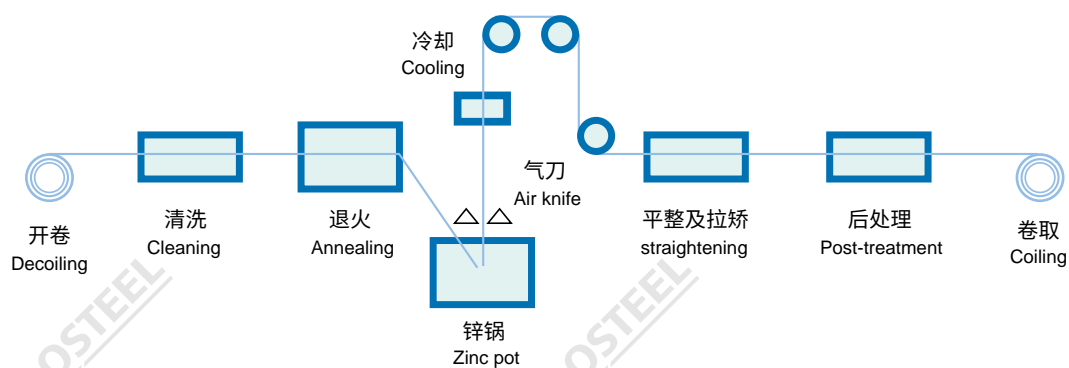
About production line

宝钢现有两条热镀铝锌机组, 设计产能45万吨/年, 产品厚度范围0.30-2.5mm, 宽度范围700-1250mm, 产品种类主要有冷成形用和结构用, 可广泛应用于建筑、家电、工业仪表、汽车等行业。

Baosteel has two hot-dip Al-Zn coated steel production lines. The designed capacity totals 450,000 t/a of hot-dip Al-Zn coated steel with the specification of 0.30-2.5 mm thick and 700-1,250 mm wide. Its main products include cold forming steel and structural steel. They are widely used for such industries as the architecture, the home appliances, the industrial instruments and the automobiles as well.

热镀铝锌工艺流程

Hot-dip Al-Zn coating process



Specs of Baosteel's hot-dip Al-Zn coated steel sheets

宝钢热镀铝锌钢板产品规格

热镀铝锌 (机组能力)

Specs of hot-dip Al-Zn coated steel sheets(Designed capability)

项 目 Item	公称尺寸 Nominal Dimension
公称厚度 Nominal Thickness	0.30-2.5mm
公称宽度 Nominal Width	700-1250mm
钢带内径 Nominal inside diameter of steel strip	508mm / 610mm

若按Q/BQB 425-2023标准供货, 执行如下。

If supply according to Q/BQB 425-2023 standard, as follows:

热镀铝锌可供钢种

Steel grades of hot-dip Al-Zn coated steel sheets

牌 号 Grade	用 途 Application
DC51D+AZ	冷成形用 Cold forming
DC52D+AZ	
DC53D+AZ	
DC54D+AZ	
S250GD+AZ	结构用 Structural
S300GD+AZ	
S350GD+AZ	
S450GD+AZ	
S550GD+AZ	

热镀锌锌力学性能

Mechanical properties of hot-dip Al-Zn coated steel sheet

牌 号 Grade	拉伸试验 ^{a, b, c} Tension Test		
	屈服强度 MPa Yield strength	抗拉强度 MPa Tensile strength	断后伸长率 % 不小于 Elongation % No less than
			A _{80mm}
DC51D+AZ	190~360	270~500	22
DC52D+AZ	140~300	270~420	26
DC53D+AZ	140~260	270~380	30
DC54D+AZ	120~220	260~350	36

^a 当屈服现象不明显时采用 $R_{p0.2}$, 否则采用 R_{eL} 。

^b 拉伸试验试样为GB/T 228.1中的P6试样, 试样方向为横向样。

^c 当产品公称厚度大于0.50mm, 但小于等于0.70mm时, 断后伸长率允许下降2个单位; 当产品公称厚度不大于0.50mm, 断后伸长率允许下降4个单位。

^a When yield is not obvious, $R_{p0.2}$ is to be used. Otherwise, use R_{eL} .

^b The tensile test sample is same as the P6 sample in GB/T228.1. This is a transversal sample.

^c When the nominal thickness of the steel is between 0.50 mm and 0.70 mm, the specific elongation after rupture is allowed to have 2 units lowered. But, when the nominal thickness of the steel is no greater than 0.50 mm, the specific elongation after rupture is allowed to have 4 units lowered.

牌 号 Grade	拉伸试验 ^{a, b, c} Tension Test			
	屈服强度 MPa 不小于 Yield strength No less than	抗拉强度 MPa 不小于 Tensile strength No less than	断后伸长率 % 不小于 Elongation % No less than	
			A _{80mm}	A _{50mm}
S250GD+AZ ^d	250	330	19	-
S300GD+AZ ^d	300	380	18	-
S350GD+AZ ^d	350	420	16	-
S450GD+AZ ^d	450	480	15	-
S550GD+AZ ^{e, f}	550	550	-	2

^a 拉伸试验试样为纵向样。

^b 屈服强度采用 $R_{p0.2}$ 。

^c 当产品公称厚度不大于0.70mm时, 断后伸长率允许下降2个单位。

^d 试样为GB/T 228.1中的P6试样。

^e 试样为JIS Z 2241规定No.5的试样。

^f 对于牌号为S550GD+AZ的产品, 当产品厚度不大于0.7mm时, 由于厚度减薄效应, 导致伸长率过低, 以致无法测得到屈服强度。此时, 屈服强度用抗拉强度代替。

^a Longitudinal sample is used for tensile testb.

^b $R_{p0.2}$ is adopted for Yield strength.

^c When the nominal thickness of the steel is no greater than 0.70 mm, the specific elongation after rupture is allowed to have 2 units lowered.

^d The sample is same as the P6 sample in GB/T228.1.

^e The sample is same as the No.5 sample in JIS Z 224.

^f For the steel grade S550GD+AZ, when the product thickness is no more than 0.7 mm, due to the thickness reduction effect, the elongation is too low and the yield strength cannot be tested. For this case, the yield strength can be replaced by tensile strength.

Specs of Baosteel's hot-dip Al-Zn coated steel sheets

宝钢热镀铝锌钢板产品规格

热镀铝锌镀层重量

Weight of hot-dip Al-Zn coating

推荐的公称镀层重量列于下表中, 如需方有特殊要求, 经供需双方协议, 亦可提供其它镀层重量。考虑到建筑用途用钢板的使用环境, 推荐使用的最小公称镀层重量为50/50 g/m²。

注: 随着镀层重量的增加, 产品的成形性能和焊接性能可能会变差, 因此, 在确定镀层重量时, 应考虑产品加工时的成形性要求和焊接性要求。

The recommended nominal coating mass are shown in table. If the purchaser has special requirement, other coating mass may be provided upon agreement between the buyer and the supplier. Considering the environmental conditions of the steel sheet for the construction application, the recommended minimum nominal coating mass is 50/50 g/m².

Note: As the coating mass increases, the formability and welding property will get worse. Therefore, when determining the coating mass, the formability and weldability requirements of products shall be considered in the processing.

镀层种类 Coating type	推荐的公称镀层重量 ^a g/m ² Recommended coating weight
铝锌合金镀层 Al-Zn alloy	30/30, 40/40, 50/50, 60/60, 75/75, 90/90

a: 50g/m²镀层重量, 约等于镀层厚度为13.3μm.

a: Coating mass 50g/m², equals to a coating thickness of 13.3μm approximately.

热镀铝锌表面结构和表面处理

Surface finish and treatment of hot-dip Al-Zn coated steel sheet

项 目 Item	分 类 Classification	代 号 Symbol
镀层种类 Coating type	铝锌合金镀层 Al-Zn alloy	AZ
镀层表面结构 Surface finish	正常锌花 Regular spangle	R
	正常小锌花 Minimized spangle	M
	平整处理 Skin passed	S
表面处理 Surface treatment	无铬钝化 Non-chromate passivated	C5
	无铬钝化+涂油 Non-chromate passivated+oiling	CO5
	普通耐指纹 Anti-fingerprint	N
	无铬耐指纹 Non-chromate anti-fingerprint	N5
	无铬高耐候耐指纹 Non-chromate high duralbe anti-finger treatment	NW
	无铬高耐候耐指纹 Non-chromate high weather resistance anti-fingerprint	NW
	涂油 Oiling	O
	不处理 No treatment	U

尺寸允许偏差

Dimension tolerance

厚度允许偏差

Thickness tolerance

钢板及钢带的尺寸和外形允许偏差应符合 Q/BQB 401 的规定。牌号为 S450GD+AZ、S550GD+AZ 的钢板，其厚度允许偏差应符合 Q/BQB 401-2019 中表 4（规定最小屈服强度 260MPa~<360MPa）的要求，不平度最大允许偏差应符合 Q/BQB 401-2019 中表 11（规定最小屈服强度 260MPa~<360MPa）的要求。

The tolerance in dimensions and shape of steel plates and strips should comply with the provisions of Q/BQB 401. The allowable thickness tolerance of steel plates with grades S450GD+AZ and S550GD+AZ should comply with the requirements of Table 4 (minimum yield strength of 260MPa~<360MPa) in Q/BQB 401-2019, and the flatness tolerance should comply with the requirements of Table 11 (minimum yield strength of 260MPa~<360MPa) in Q/BQB 401-2019.

规定的最小 屈服强度 Specified minimum yield strength MPa	公称厚度 Nominal Thickness mm	下列公称宽度时的厚度允许偏差, mm The thickness tolerance is dedicated for the following nominal widths, mm					
		普通精度 PT.A Common precise PT.A			高级精度 PT.B High-level precision PT.B		
		≤1200	>1200~1500	>1500	≤1200	>1200~1500	>1500
<260	0.17~0.30	±0.02	±0.025	-	±0.015	±0.020	-
	>0.30~0.40	±0.03	±0.03	±0.04	±0.020	±0.025	±0.030
	>0.40~0.60	±0.03	±0.04	±0.04	±0.025	±0.030	±0.035
	>0.60~0.80	±0.04	±0.04	±0.05	±0.025	±0.030	±0.035
	>0.80~1.00	±0.05	±0.06	±0.06	±0.030	±0.035	±0.040
	>1.00~1.20	±0.06	±0.06	±0.07	±0.035	±0.040	±0.050
	>1.20~1.60	±0.08	±0.08	±0.09	±0.040	±0.050	±0.060
	>1.60~2.00	±0.09	±0.10	±0.11	±0.050	±0.060	±0.070
	>2.00~2.50	±0.11	±0.12	±0.13	±0.070	±0.080	±0.090
260~<360	>2.50~3.00	±0.13	±0.13	±0.15	±0.090	±0.100	±0.110
	>3.00~3.50	±0.15	±0.17	±0.17	±0.120	±0.130	±0.130
	0.30~0.40	±0.03	±0.04	±0.05	±0.025	±0.030	±0.035
	>0.40~0.60	±0.04	±0.05	±0.05	±0.030	±0.035	±0.040
	>0.60~0.80	±0.04	±0.05	±0.06	±0.030	±0.035	±0.045
	>0.80~1.00	±0.05	±0.06	±0.07	±0.035	±0.040	±0.050
	>1.00~1.20	±0.06	±0.07	±0.08	±0.040	±0.050	±0.060
	>1.20~1.60	±0.08	±0.10	±0.11	±0.050	±0.060	±0.070
	>1.60~2.00	±0.11	±0.12	±0.13	±0.060	±0.070	±0.090
360~420	>2.00~2.50	±0.13	±0.14	±0.15	±0.090	±0.100	±0.110
	>2.50~3.00	±0.15	±0.16	±0.17	±0.110	±0.120	±0.130
	>3.00~3.50	±0.18	±0.21	±0.21	±0.150	±0.160	±0.160
	0.30~0.40	±0.04	±0.05	±0.05	±0.030	±0.035	±0.040
	>0.40~0.60	±0.05	±0.05	±0.06	±0.035	±0.040	±0.050
	>0.60~0.80	±0.05	±0.06	±0.07	±0.040	±0.050	±0.055
	>0.80~1.00	±0.06	±0.07	±0.08	±0.050	±0.055	±0.060
	>1.00~1.20	±0.08	±0.09	±0.10	±0.055	±0.065	±0.070
	>1.20~1.60	±0.10	±0.11	±0.12	±0.070	±0.075	±0.090
>420	>1.60~2.00	±0.13	±0.14	±0.15	±0.080	±0.090	±0.100
	>2.00~2.50	±0.15	±0.16	±0.17	±0.100	±0.110	±0.120
	>2.50~3.00	±0.17	±0.18	±0.19	±0.120	±0.130	±0.140
	>3.00~3.50	±0.22	±0.25	±0.25	±0.190	±0.200	±0.200
	0.30~0.40	±0.05	±0.06	±0.07	±0.035	±0.040	±0.050
	>0.40~0.60	±0.06	±0.06	±0.07	±0.040	±0.050	±0.060
	>0.60~0.80	±0.06	±0.07	±0.09	±0.050	±0.060	±0.070
	>0.80~1.00	±0.08	±0.09	±0.10	±0.060	±0.070	±0.080
	>1.00~1.20	±0.09	±0.10	±0.12	±0.070	±0.080	±0.100
>420	>1.20~1.60	±0.12	±0.13	±0.15	±0.080	±0.100	±0.110
	>1.60~2.00	±0.15	±0.16	±0.18	±0.100	±0.110	±0.130
	>2.00~2.50	±0.18	±0.19	±0.21	±0.120	±0.130	±0.150
	>2.50~3.00	±0.21	±0.22	±0.23	±0.150	±0.160	±0.170
	>3.00~3.50	±0.23	±0.25	±0.25	±0.190	±0.200	±0.200

Specs of Baosteel's hot-dip Al-Zn coated steel sheets

宝钢热镀铝锌钢板产品规格

宽度允许偏差

Width tolerance

钢板及钢带的宽度允许偏差应符合下表规定

The plate or strip width tolerances should be in conformity with Table

边缘状态 Edge condition	公称宽度, mm Nominal width, mm	宽度允许偏差 (PW.A), mm Width tolerance (PW.A), mm
不切边(EM) Mille edge(EM)	600~1200	0~+5
	> 1200~1500	0~+6
	> 1500	0~+7

宝钢企业牌号与引用标准相近牌号的对照表

Comparison list of Baosteel's steel grade and corresponding steel grade

Q/BQB 425	QB/T 14978	AS 1397	EN 10346	ASTM A792M	JIS G 3321
DC51D+AZ	DX51D+AZ	G2+AZ	DX51D+AZ	CS type B CS type C	SGLCC
DC52D+AZ	DX52D+AZ	G3+AZ	DX52D+AZ	DS	SGLCD
DC53D+AZ	DX53D+AZ	—	DX53D+AZ	—	SGLCDD
DC54D+AZ	DX54D+AZ		DX54D+AZ		
S250GD+AZ	S250GD+AZ	G250+AZ	S250GD+AZ	SS 255	—
S300GD+AZ	S300GD+AZ	G300+AZ	—	—	SGLC400
S350GD+AZ	S350GD+AZ	G350+AZ	S350GD+AZ	SS 345 Class1	SGLC440
S450GD+AZ	—	G450+AZ	—	SS 410 SS 480	SGLC490
S550GD+AZ	S550GD+AZ	G550+AZ	S550GD+AZ	SS 550 Class1	SGLC570

宝钢可对照上表提供对应标准及对应牌号的产品

宝钢热镀铝锌产品承诺书

宝钢热镀铝锌产品承诺书



宝山钢铁股份有限公司
Baoshan Iron & Steel Co., Ltd.

宝钢镀铝锌产品质量承诺书

各位用户：

宝山钢铁股份有限公司郑重承诺：我公司生产的镀铝锌产品（符合BQB425 标准）自出厂之日起，在正常的加工和使用条件下，可保证达到：

1. 镀铝锌钢板（带）在10年内粉化程度不超过6级，试验及评定按 ASTM D4214 执行；
2. 在20年内不发生腐蚀穿孔。

特别说明：

正常的加工和使用条件含义如下：

1. 通常的气候条件(距海岸线1000米以内和重工业污染区除外)；
2. 必须是宝钢生产的镀层重量不小于75/75g/m²的普通耐指纹产品（代号N）或无铬高耐候耐指纹产品（代号NW）；
3. 按照宝钢镀铝锌产品技术手册要求进行安装（如安装前保持板面干燥，不能用电锯等加工，以免高温铁屑影响涂层）。

本承诺书不对下列情况造成的损伤进行保证：

1. 在加工前后或加工过程中镀层受到机械或化学的损伤；
2. 长时间的沉积物、铁屑或接触油污；

Product warranty of Baosteel's hot-dip Al-Zn coated steel sheets
宝钢热镀铝锌产品承诺书

宝钢热镀铝锌产品承诺书

3. 与不匹配的材料接触（如铅、铜、石墨或不锈钢等）；
4. 与湿的原木及湿的混凝土接触；
5. 受不可控或不可预见的人为或自然灾害的影响。

用户须知：

本质量承诺自生效之日起，用户必须提供下列完整的可追溯资料：

- （1）合同号、钢卷号；
- （2）工程竣工验收记录；
- （3）原始钢卷采购凭证等。

本承诺书对二〇一八年一月一日后生产的产品有效，最终解释权归宝山钢铁股份有限公司。


授权人签字(盖章)

二〇一八年四月

宝钢热镀铝锌产品承诺书



宝山钢铁股份有限公司
Baoshan Iron & Steel Co., Ltd.

20 Years Limited Warranty for 55% AL-ZN Alloy coated steel

Dear valuable customers may be concerned:

Bao Shan Iron & Steel Co., Ltd. (hereinafter called "BAOSTEEL") certified that Baosteel's Hot dipped 55% AL-ZN alloy coated steel with anti-finger print surface treatment (Surface Treatment Symbol N) and High weather resistance anti-finger print surface treatment (Surface Treatment Symbol NW), sold for unpainted steel building roofing and siding panel usage, will meet Baosteel standard-Q/BQB425 and ASTM A792 / A792 M. Baosteel also warrants that no corrosion caused perforation under normal atmospheric conditions within a period of 20 years after shipment from Baosteel's mill. Warranty applies to Hot dipped 55% AL-ZN alloy coated steel of ASTM A792 with AZ50/AZM150 coating or heavier.

1. Products chalking in 10 years do not exceed 6 degree according to ASTM D4214.
2. Corrosion caused perforation within 20 years is not allowed.

This warranty does not apply to following conditions:

1. Sheets exposed in salt water marine or corrosive or aggressive atmospheric conditions.
2. Sheets exposed in corrosive chemicals, fumes, like heavy polluted industrial area.
3. Sheets exposed within 1 kilometer distance from coastline.
4. Sheets abnormally processed, like keeping in humid air, using high-temperature electric saw.

This warranty does not apply in the event of:

1. Mechanical or chemical damage occurred on coating before / during / after fabrication.
2. Iron slag dreg or oil spot on the sheet surface for a long time.
3. Stored nearby aggressive material such as Pb, Cu, Graphite or stainless steel.
4. Stored nearly humid wood or wet concrete.
5. Damaged by some unforeseen disaster or force majeure.

Claim must be promptly reported to Baosteel along with all necessary information, including mill's contract number /coil number /invoice /project inspection-report /construction annual maintenance record, etc. Also Baosteel should be given a reasonable period for inspection and verification.

This warranty takes effect as of Jan 1, 2018. All rights reserved by Baosteel for above contents.
Baoshan Iron & Steel Co., Ltd.



符合RoHS指令的SGS环保报告

注:产品认证(环保)及体系认证报告,可至宝钢慧创平台, (<http://www.ibaosteel.com>) 查询下载最新版本报告。

Note: The latest version of environmental certification report from SGS and system certification report from BSI can be download from the website: <http://www.ibaosteel.com>.

SGS

检测报告

编号: SHAEC24007569814

日期: 2024 年 05 月 10 日

第 1 页, 共 13 页

客户名称: 宝山钢铁股份有限公司梅山基地
客户地址: 江苏省南京市中华门外新建

样品名称: 热镀锌锌无铬耐指纹 (N5)
以上样品及信息由客户提供。

SGS 工作编号: SHP24-011557
样品接收时间: 2024 年 04 月 22 日
检测周期: 2024 年 04 月 22 日 ~ 2024 年 04 月 26 日
检测要求: 根据客户要求检测。
检测方法: 见后续页。
检测结果: 见后续页。

检测要求	结论
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863- 铅、汞、镉、六价铬、多溴联苯 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁酯 (BBP)、邻苯二甲酸二丁酯 (DBP) 和邻苯二甲酸二异丁酯 (DIBP)	符合
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863- 铅、汞、镉、六价铬、多溴联苯 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二丁酯 (DBP)、邻苯二甲酸丁酯 (BBP)、邻苯二甲酸二(2-乙基己基)酯 (DEHP) 和邻苯二甲酸二异丁酯 (DIBP)	符合
全氟辛酸磺酸(PFOA)及其衍生物和全氟辛酸(PFOA)及其盐	见检测结果

通标标准技术服务 (上海) 有限公司
授权签名

盛雯舒

Sue Sheng 盛雯舒
批准签署人

scan to see the report

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符合RoHS指令的SGS环保报告



Test Report No.: SHAEC24007569813 Date: May 10, 2024 Page 1 of 14

Client Name: BAOSHAN IRON & STEEL CO., LTD. (MEISHAN BASE)
Client Address: XINJIAN, ZHONGHUAMEN, NANJING, JIANGSU, CHINA

Sample Name: Hot-dip aluminum-zinc alloy coated steel, chromium-free anti-fingerprint (N5)
The above sample(s) and information were provided by the client.

SGS Job No.: SHP24-011557
Sample Receiving Date: Apr 22, 2024
Testing Period: Apr 22, 2024 ~ Apr 26, 2024
Test Requested: Select test(s) as requested by the client.
Test Method(s): Please refer to next page(s).
Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass
Perfluorooctane sulfonates (PFOS) and its derivatives and Perfluorooctanoic acid (PFOA) and its salts	See Results

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.


Sue Sheng
Approved Signatory


CEB67CE5


SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Testing Center (China) Co., Ltd.

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Baosteel hot-dip aluminum zinc alloy coated product's reports and certificates 宝钢热镀铝锌产品报告与证书

宝钢股份 ISO 9001 认证书

  	
<h1>Certificate of Registration</h1>	
<p>质量管理体系 - ISO 9001:2015</p>	
<p>兹证明:</p>	<p>上海梅山钢铁股份有限公司 913201001348728597 中国 江苏省 南京市 雨花台区 梅钢路8号 邮编: 210039</p>
	<p>Shanghai Meishan Iron & Steel Co., Ltd. No. 8 Meigang Road Yuhuatai District Nanjing Jiangsu 210039 China</p>
<p>持有证书:</p>	<p>FM 99650</p>
<p>并运行符合 ISO 9001:2015 要求的质量管理体系, 认证范围如下:</p>	
<p>钢材产品包括热轧钢板卷, 冷轧钢板卷, 酸洗钢板卷的设计和制造。 The design and manufacture of steel products including hot-rolled sheets and coils, cold-rolled sheets and coils, and acid pickling sheets and coils.</p>	
<p>BSI代表:</p>	
	<p>Michael Lam - Managing Director Assurance, APAC</p>
<p>首次发证日期: 2005-10-08</p>	<p>生效日期: 2024-07-23</p>
<p>最新发证日期: 2024-07-23</p>	<p>有效期至: 2027-07-22</p>
  	<p>Page: 1 of 1</p>
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<p>信息咨询及联系方式: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. 电话: +44 145 080 9000 BSI 集团英国有限公司, 注册地英国, 注册号 7805321. 地址: 389 Chiswick High Road, London W4 4AL, UK 英标管理体系认证(北京)有限公司 北京市健翔门内大街甲24号东尚中心2008室 邮编: 100094 电话: +86 10 85073000 BSI 集团公司成员。</p>	

订货时用户需提供下列信息：

- a) 产品名称(钢板或钢带);
- b) 本产品标准号;
- c) 牌号;
- d) 尺寸及其精度(包括厚度、宽度、长度、钢带内径等);
- e) 不平度精度;
- f) 镀层重量;
- g) 表面处理;
- h) 表面质量;
- i) 重量;
- j) 包装方式。

Please provide the following information when making an order

- a) Product name
- b) Product standard
- c) Grade
- d) Specification and precision (Including thickness, width and inside diameter of coil)
- e) Roughness precision
- f) Coating weight
- g) Surface treatment
- h) Surface quality
- i) Weight
- j) Package



宝山钢铁股份有限公司
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BAOSHAN IRON & STEEL CO., LTD.
http://www.baosteel.com

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CRS Sales Department
地址: 上海宝山漠河路151号
邮编: 201999
电话: 021-26649834

宝钢服务热线
Baosteel Service Hot-line
400-820-8590

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广州宝钢南方贸易有限公司
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CENTRAL CHINA TRADING CO., LTD.
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沈阳宝钢东北贸易有限公司
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东北亚及澳洲大区 Northeast Asia and Oceania Region

宝和通商株式会社
HOWA TRADING CO., LTD.
TEL: 0081-3-32379121
FAX: 0081-3-32379123

首尔事务所
SEOUL OFFICE
TEL: 0082-2-5080893
FAX: 0082-2-5080891

BGM株式会社
BGM CO., LTD
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FAX: 0082-31-3514558

高雄事务所
KAOHSIUNG OFFICE
TEL: 00886-7-3356606
FAX: 00886-7-3356609

宝钢澳大利亚贸易有限公司
BAO AUSTRALIA PTY LTD.
TEL: 0061-8-94810535
FAX: 0061-8-94810536

东南亚及南亚大区 South East Asia and South Asia Region

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BAOSTEEL SINGAPORE PTE LTD.
TEL: 0065-63336818
FAX: 0065-63336819

宝钢越南代表处
VIETNAM OFFICE
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FAX: 0084-8-9100124

宝钢泰国代表处
THAILAND OFFICE
TEL: 0066-2-6368485
FAX: 0066-2-2348989

宝钢河内代表处
HANOI OFFICE
TEL: 0084-24-62694200
FAX: 0084-24-62691392

宝钢印尼钢材加工有限公司(含印尼代表处)
PT. BAOSTEEL INDONESIA STEEL SERVICE CENTER
(INDONESIA OFFICE)
TEL: 0062-21-3040 8575
FAX: 0062-21-3040 8583

宝钢印度有限公司(含SANAND加工中心)
BAOSTEEL INDIA COMPANY PRIVATE LTD.
(SANAND STEEL SERVICE CENTER)
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FAX: 0091-22-30071777

宝新马来西亚代表处
MALAYSIA OFFICE
TEL: 0060-32-2016986

欧非中东大区 Europe, Africa & Middle East Region

宝钢欧洲有限公司
BAOSTEEL EUROPE GMBH
TEL: 0049-89-32709090
FAX: 0049-89-3270909130

宝钢意大利钢材集散中心有限公司
BAOSTEEL ITALIA DISTRIBUTION CENTER SPA
TEL: 0039-010-530881
FAX: 0039-010-5308895

宝钢西班牙有限公司
BAOSTEEL ESPAÑA, S.L.
TEL: 0034-93-4119325
FAX: 0034-93-4119330

宝钢中东公司
BAOSTEEL MIDDLE EAST FZE
TEL: 00971-4-8840458
FAX: 00971-4-8840485

宝欧俄罗斯代表处
RUSSIA OFFICE
TEL: 7-499-2585602
FAX: 7-499-2585602

宝欧南非代表处
SOUTH AFRICA OFFICE
TEL: 0027-11-7839985
FAX: 0027-11-7842408

宝欧土耳其代表处
TÜRKIYE OFFICE
TEL: 0090-212-3440067
FAX: 0090-212-3440068

宝欧沙特代表处
SAUDI ARABIA OFFICE
TEL: 00966-502894656

宝欧突尼斯代表处
TUNISIA OFFICE
TEL: 00216-36013995

美洲大区 America Region

宝钢美洲有限公司
BAOSTEEL AMERICA INC.
TEL: 001-201-3073355
FAX: 001-201-3073358

宝钢巴西有限公司
BAOSTEEL DO BRAZIL LTDA.
TEL: 0055-11-26678869

宝美加拿大代表处
CANADA OFFICE
TEL: 001-905-7315888/7315885
FAX: 001-905-7315883

宝美圣地亚哥代表处
SAN DIEGO OFFICE
TEL: 001-949-7526789
FAX: 001-949-7521234

宝美墨西哥代表处
MEXICO OFFICE
TEL: 0052-55-55319506
FAX: 0052-55-55319506-201

宝美巴拿马代表处
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TEL: 507-382-5225

宝美蒙特雷代表处
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