



Al-Zn Alloy-Coated

热镀铝锌

www.baosteel.com



Content 目录

1

热镀锌钢板介绍

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

2

宝钢热镀锌产品规格

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

3

宝钢热镀锌产品承诺书

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

4

订货所需信息

Info for order

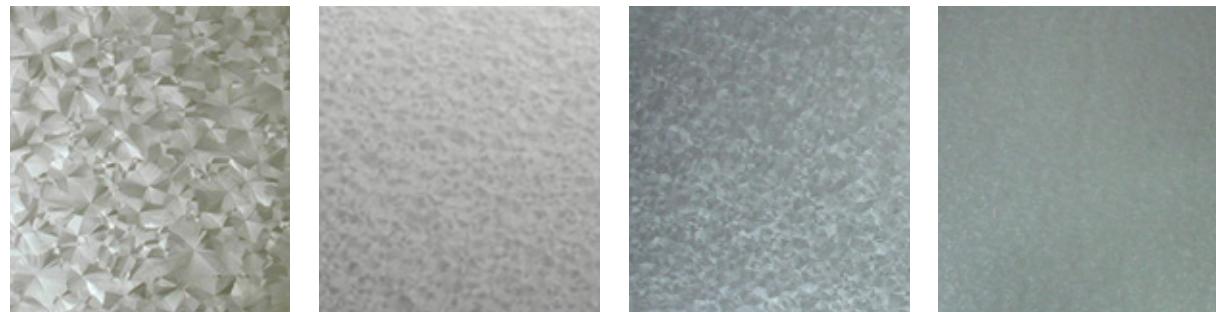
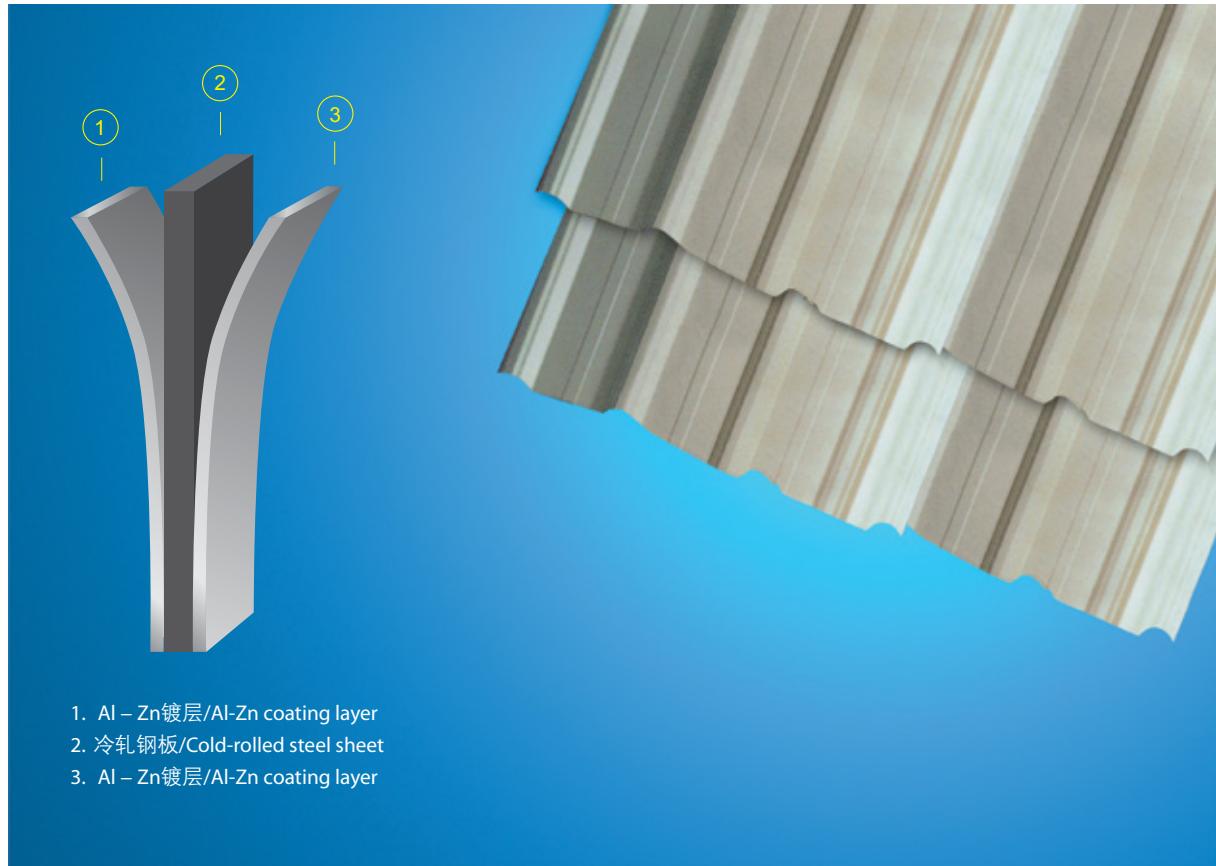
热镀锌钢板介绍

■ 热镀锌钢板的定义

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

→ 热镀锌钢板是以各种强度和厚度规格的冷轧钢板为基材，在双面热镀一层Al-Zn镀层所得到的预镀钢钢板，镀层成分中质量百分比约为55%Al、1.6%Si、43.4%Zn。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。

The hot-dip Al-Zn coated steel is a kind of coated steel. With the cold rolled steel of different strength and thickness as substrate, it is produced through applying Al-Zn coat on both faces by hot dip process. In its coating, Al accounts for about 55%, Si 1.6%, Zn 43.4%. 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

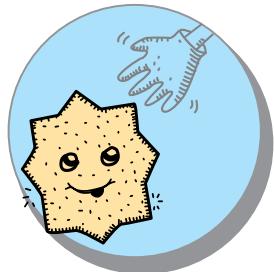
小锌花
Minimized spangle

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

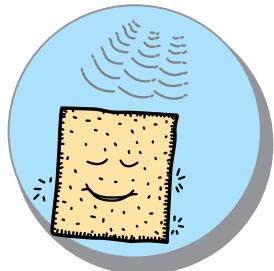
Characteristics of the hot-dip Al-Zn coated steel sheet



成型性
Machinability

→ 满足辊压冲压成形、弯曲和其它形式的加工要求。

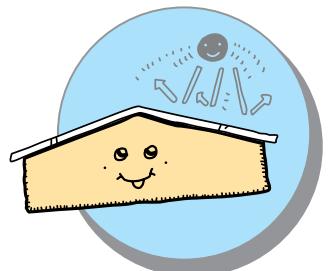
It can satisfy the processing requirements of rolling, coiling and others processes alike.



耐热性
Thermal resistance

→ 普通热镀锌产品通常使用温度不超过230℃，250℃时会变色，镀铝锌板可在315℃环境下长期使用。

Common HDG steel plate normally works under 230°C, and has its color changed at 250°C, however, hot-dip Al-Zn coated steel plate can sustain the environment at 315°C for long time.



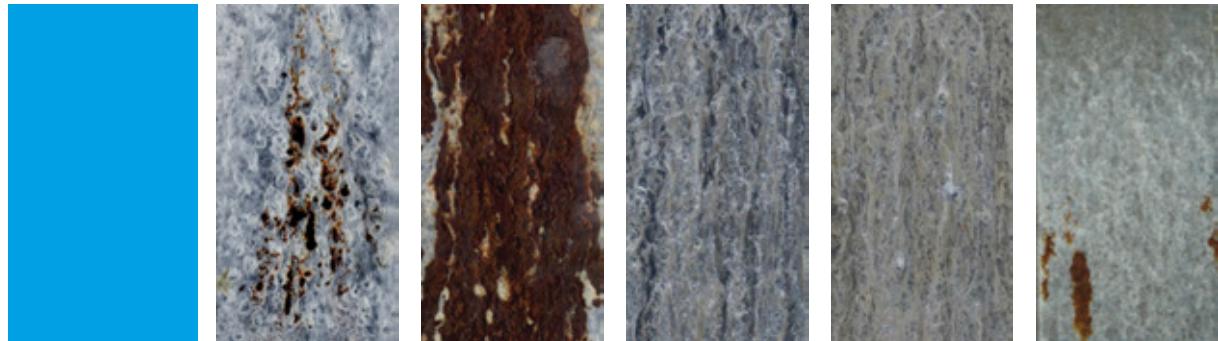
高反射性
High reflectivity

→ 反射热和光的能力是热镀锌钢板的2倍，反射率大于0.70，优于EPA Energy Star规定的0.65，是节能的理想建筑材料。

Reflection ability of heat and light is twice as much as those of hot-dip zinc steel sheet, and its reflectivity is more than 0.70, exceeding 0.65 (required by the EPA Energy Star Standard), which is an ideal construction materials of saving energy.

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				
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。

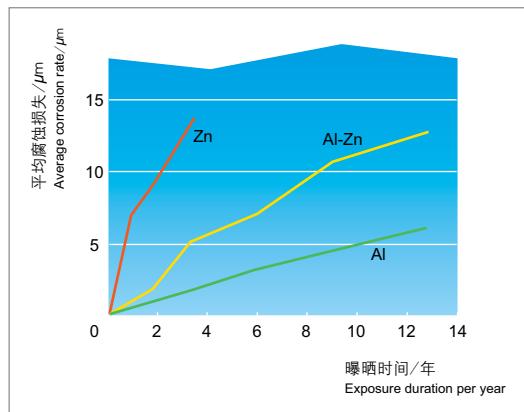
Al-Zn coated steel sheet has better performance in corrosion resistance than GI sheet of the same thickness and its service life is 2-6 times longer than general GI sheet.

Introduction to the hot-dip Al-Zn coated steel sheet 热镀铝锌钢板介绍

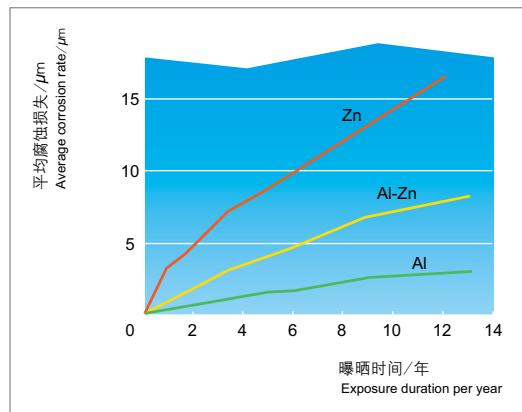
■ 热镀铝锌钢板的特性 Characteristics of the hot-dip Al-Zn coated steel sheet

大气曝晒试验

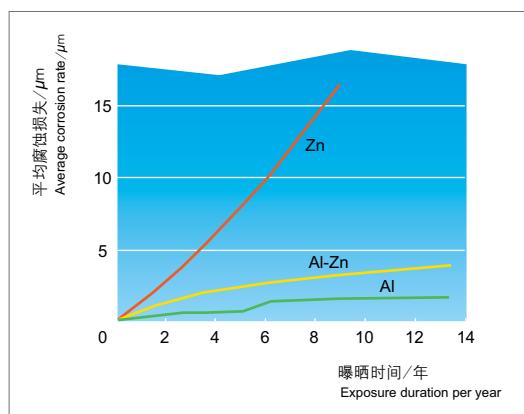
Exposure test



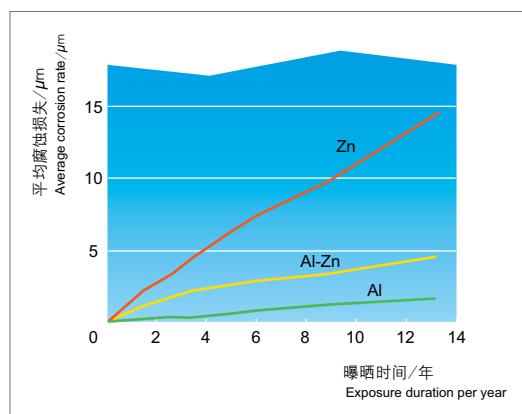
苛刻海洋性气候
Tough marine climate



中等海洋性气候
Moderate marine climate



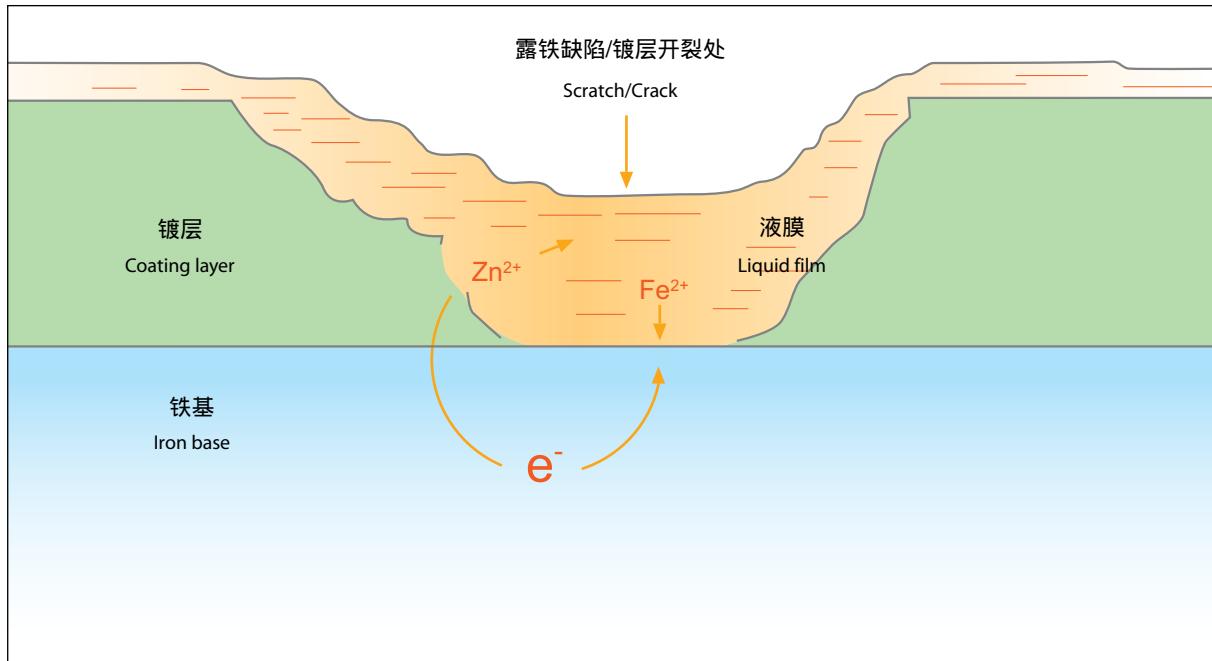
工业性气候
Industrial climate



乡村气候
Countryside climate

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: $Zn - 2e = Zn^{2+}$ (镀层失去电子, 牺牲溶解)

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

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

anodic reaction: $Zn - 2e = Zn^{2+}$

(The alloy coating loses electron)

cathode reaction: $Fe^{2+} + 2e = Fe$

(Fe gains electron reaction, being protected)

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



**Outstanding Heat-Insolation,
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 to be used, small-lot is needed for the initial use, in order to prevent the damage of the coating.

■ 热镀锌钢板用途

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, fences 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

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



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

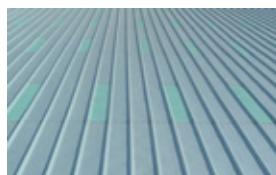
底部零件、高速公路标志牌、汽车小喇叭、小五金等

Other

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

■ 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

Introduction to the hot-dip Al-Zn coated steel sheet 热镀铝锌钢板介绍

■ 产品应用 Applications



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
-------------------------------------	--	---	---	---	----------------------------	---------------------------------



耐指纹性能对比

Comparison of anti-finger print

性 能 Performance	N5无铬耐指纹 产品—适用于内家电 Non-chromate anti-fingerprint-suitable for household appliances	N有铬耐指纹 产品—适用于外建筑 Anti-fingerprint-suitable for outdoor architecture	NW高耐蚀良加工耐指纹 产品—适用于外家电及建筑 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

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

热镀铝锌钢板介绍

耐蚀性 — 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)	溶剂擦试后 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

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

$\Delta E^*=0.5$

$\Delta E^*=1.2$

$\Delta E^*=2.5$

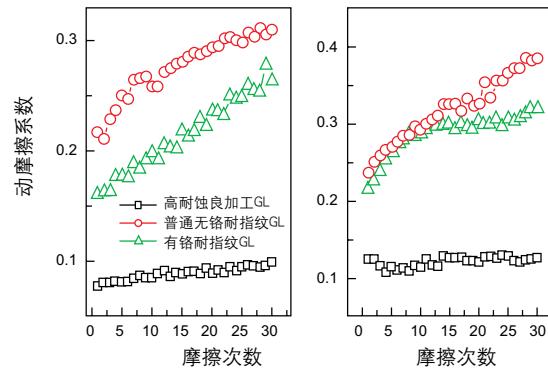
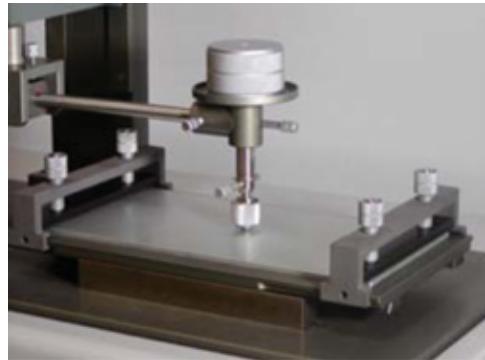
抗加工发黑性

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

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

宝钢热镀铝锌钢板产品规格



产线介绍

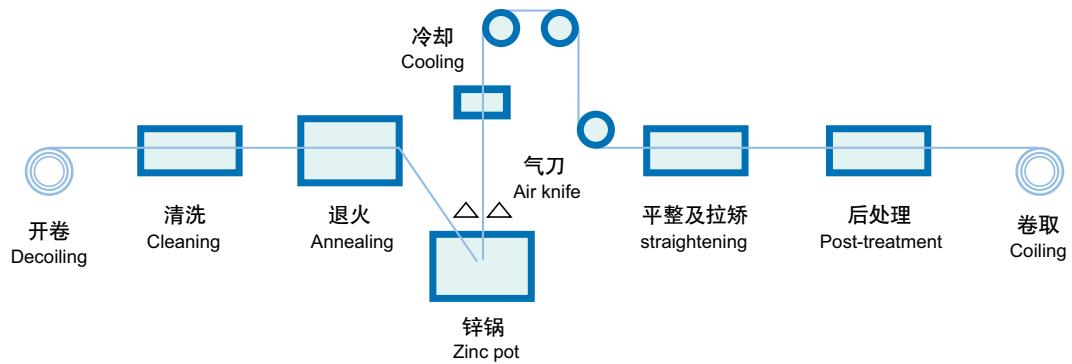
About production line

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0.3~2.0mm，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 0.3 ~ 2.0 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



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	0.3-2.0mm
公称宽度 Nominal Width	700-1250mm
钢带内径 Nominal inside diameter of steel strip	508mm / 610mm

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	

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	-	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/T228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。

^d 对于上表中DC51D+AZ和DC52D+AZ的钢板及钢带, 保证在制造后一个月内, 其力学性能符合表中规定。对于上表中其他牌号的钢板及钢带, 保证在制造后6个月内, 其力学性能符合表中规定。

^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. 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.

^d With regard to the plate and strip of DC51D+AZ and DC52D+AZ, their physical properties are guaranteed to remain same as those specified as in the above table, within one month after the production, while with regard to other grades, their physical properties are guaranteed to remain same, within six months after the production.

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}
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 当屈服现象不明显时采用R_{P0.2}, 否则采用R_{eH}。

^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/T228中的P6试样。

^e 试样为GB/T228中的P14试样。

^f 对于低牌号为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, 以致无法测得屈服强度。此时, 屈服强度用抗拉强度代替。

^a Longitudinal sample is used for tensile test.

^b When yield is not obvious, R_{P0.2} is to be used. Otherwise, use R_{eH}.

^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.

^e The sample is same as the P14 sample in GB/T228.

^f As for the low grade steels like S550GD+AZ, when the thickness is no greater than 0.7 mm, yield strength cannot be measured because of the plate thinning effect that leads to too low specific elongation. At that time, the yield strength should be replaced by the tensile strength.

热镀铝锌镀层重量

Weight of hot-dip Al-Zn coating

镀层的可供重量范围为30/30g/m²~90/90g/m²，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。

Coating weights range from 30/30g/m² to 90/90g/m². The nominal coating weights are given in the following table as the recommendation. The other coating weights than these can be made to order after concluding the agreement between the supplier and the customer.

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: 50 g/m²镀层重量，约等于镀层厚度为13.3μm.

a: The weight of the coating is about 50 g/m², and the thickness is 13.3μm.

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	-
	平整锌花 Skin passed spangle	S
	小锌花 Minimized spangle	-
表面处理 Surface treatment	铬酸钝化 Chromate passivated	C
	无铬钝化 Non-chromate passivated	C5
	铬酸钝化+涂油 Chromate passivated + oiling	CO
	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 treatment	N5
	涂油 Oiling	O
	不处理 No treatment	U

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

宝钢热镀铝锌钢板产品规格

尺寸允许偏差

Dimension tolerance

厚度允许偏差

Thickness tolerance

对于规定的最小屈服强度小于260MPa的钢板及钢带，其厚度允许偏差应符合下表的规定

If the minimal yielding strength of the steel strip is under 260MPa, the width tolerances should be in conformity with the following table.

公称厚度, mm Nominal Thickness, mm	下列公称宽度时的厚度允许偏差 ^a , mm The thickness tolerance is dedicated for the following nominal widths ^a , mm					
	普通精度 PT.A Common precise PW.A			高级精度 PT.B High-level precision PW.B		
	≤1200	>1200~1500	>1500	≤1200	>1200~1500	>1500
0.30~0.40	±0.04	±0.05	±0.06	±0.030	±0.035	±0.040
>0.40~0.60	±0.04	±0.05	±0.06	±0.035	±0.040	±0.045
>0.60~0.80	±0.05	±0.06	±0.07	±0.040	±0.045	±0.050
>0.80~1.00	±0.06	±0.07	±0.08	±0.045	±0.050	±0.060
>1.00~1.20	±0.07	±0.08	±0.09	±0.050	±0.060	±0.070
>1.20~1.60	±0.10	±0.11	±0.12	±0.060	±0.070	±0.080
>1.60~2.00	±0.12	±0.13	±0.14	±0.070	±0.080	±0.090

^a 钢带焊缝附近10m范围的厚度允许偏差可超过规定值的50%

^a The thickness tolerance of over 50% more than the specified value is allowed at 10 m close to the strip weld seam

对于规定的最小屈服强度不小于260MPa，但小于360MPa的钢板及钢带，以及牌号为DX51D+AZ和S550GD+AZ的钢板及钢带，其厚度允许偏差应符合下表的规定

If the minimal yielding strength is no less than 260MPa but under 360MPa, or the steel grade is DX51D+AZ or S550GD+AZ, the width tolerances should be in conformity with the following table.

公称厚度, mm Nominal Thickness, mm	下列公称宽度时的厚度允许偏差 ^a , mm The thickness tolerance is dedicated for the following nominal widths ^a , 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
0.30~0.40	±0.05	±0.06	±0.07	±0.035	±0.040	±0.045
>0.40~0.60	±0.05	±0.06	±0.07	±0.040	±0.045	±0.050
>0.60~0.80	±0.06	±0.07	±0.08	±0.045	±0.050	±0.060
>0.80~1.00	±0.07	±0.08	±0.09	±0.050	±0.060	±0.070
>1.00~1.20	±0.08	±0.09	±0.11	±0.060	±0.070	±0.080
>1.20~1.60	±0.11	±0.13	±0.14	±0.070	±0.080	±0.090
>1.60~2.00	±0.14	±0.15	±0.16	±0.080	±0.090	±0.110

^a 钢带焊缝附近10m范围的厚度允许偏差可超过规定值的50%

^a The thickness tolerance of over 50% more than the specified value is allowed at 10 m close to the strip weld seam

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

公称宽度, mm Nominal width, mm	宽度允许偏差, mm Width tolerance, mm	
	普通精度 PW.A Common precise PW.A	高级精度 PW.B High-level precision PW.B
600~1200	+5 0	+2 0
> 1200~1500	+6 0	+2 0

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 425-2014	QB/T 14978-2008	AS 1397-2011	EN 10346:2009	ASTM A792M-10	JIS G 3321:2012
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

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



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. 按照 ASTM 相关标准，镀铝锌钢板（带）在 10 年内粉化程度不会超过 6 级。
2. 在加工成型后 5 年内镀层不会发生肉眼可见的裂纹。
3. 在 20 年内不会发生腐蚀穿孔。

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（如海岸 1000 米以内和重工业污染区除外）。
- (2) 必须是宝钢生产的镀层厚度不小于 150g/m^2 的耐指纹镀铝锌产品（环保耐指纹除外）。
- (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、铁屑或油污接触。
- (3) 和不匹配的材料接触（如铅，铜，石墨或不锈钢等）。

宝钢热镀锌产品承诺书

- (4) 和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

本承诺书对二〇〇七年八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。



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



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

20 Years, 6 months 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, sold for unpainted steel building roofing and siding panel usage, will meet Baosteel standard-Q/BQB425 and ASTM A792 / A792 M 2003. Baosteel also warrants that no corrosion caused perforation under normal atmospheric conditions within a period of 20 years and 6 months 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 related standard
2. No apparent crack on coating surface could be observed within 5 years.
3. Corrosion caused perforation within 20 years and 6 months 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 Aug 1, 2007. All rights reserved by Baosteel for above contents.
Baoshan Iron & Steel Co.,Ltd.



SGS盐雾试验报告



测试报告

No. SHAEC1500689801 Date: Feb. 10, 2015

Page 1 of 14

宝山钢铁股份有限公司
上海市宝山区漠河路 151 号

以下测试之样品是由申请者所提供及确认: N5 无铬耐指纹镀铝锌板 (环保), NW 高耐候耐指纹镀铝锌板 (环保)

SGS 工作编号:	SP15-001138-SH
收样日期:	2015-01-13
测试周期:	2015-01-13 – 2015-02-10
测试要求:	根据客户选择测试.
测试方法:	见后续页.
测试结果:	见后续页.

通标标准技术服务（上海）有限公司
授权签名

Marry Ma 马广媛
批准签署人



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, limitation of warranties and indemnification clauses therein. The Company's sole responsibility is to inspect the sample(s) provided and to report thereon. The Company does not accept responsibility for any damage resulting from any action taken by the Client in reliance on the results of the test(s). The Client agrees that the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is illegal and offenders will be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (06-755) 8307 5443, or email: CN.Doccheck@sgs.com

3rd Building No.889 Yehan Road Xuhui District, Shanghai, China 200233 I E&E (06-21) 61402553 F&E (06-21) 6495979 www.sgsgroup.com.cn

中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 HL: (06-21) 61402594 HL: (06-21) 54500353 e: sgs.china@sgs.com

Member of the SGS Group (SGS SA)

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

SGS盐雾试验报告



测试报告

No. SHAEC1500689801 Date: Feb. 10, 2015

Page 2 of 14

结果总结:

序号	测试项目	测试方法	结果	结论
1	中性盐雾(NSS)试验	ASTM B117-11	见结果	/

备注: 合格: 达到要求

不合格: 未到达要求

/: 不下判定

测试项目: 中性盐雾(NSS)试验

样品描述: 金属板

测试方法: ASTM B117-11

测试条件:

沉降盐液浓度: (5±1)% NaCl(m/m)

试验箱温度: (35±2)°C

盐雾沉降率: (1.0~2.0)ml/(80cm²·h)

沉降盐液 pH 值(25°C): 6.5~7.2

暴露时间: 500 小时



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction clauses in those conditions. Any statement of fact made in this document is based on information supplied by the Client and on the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not entitle parties to a transaction from exercising all their rights and obligations under the transaction. This document and its contents cannot be reproduced in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content of this document is an offence and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8397 1443, or email: CN_Doccheck@sgs.com

3rd Building No.889 Yuhai Road Xuhui District,Shanghai China 200233 T+E&E (86-21)61402505 T+E&E (86-21)64653679 www.sgsgroup.com.cn

中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 HL: (86-21)61422994 HL: (86-21)54600363 e: sgs.china@sgs.com

Member of the SGS Group (SGS SA)

SGS盐雾试验报告



测试报告

No. SHAEC1500689801 Date: Feb. 10, 2015

Page 4 of 14

测试结果:

样品	暴露时间	样品编号	外观
N5	48 h	1#	可视黑斑和白锈, 缺陷面积: 5-10%
		2#	可视黑斑和白锈, 缺陷面积: 1-5%
		3#	可视黑斑和白锈, 缺陷面积: 1-5%
	72 h	1#	可视黑斑和白锈, 缺陷面积: 10-15%
		2#	可视黑斑和白锈, 缺陷面积: 1-5%
		3#	可视黑斑和白锈, 缺陷面积: 1-5%
	120 h	1#	可视黑斑和白锈, 缺陷面积: 10-15%
		2#	可视黑斑和白锈, 缺陷面积: 1-5%
		3#	可视黑斑和白锈, 缺陷面积: 1-5%
	168 h	1#	可视黑斑和白锈, 缺陷面积: 10-15%
		2#	可视黑斑和白锈, 缺陷面积: 1-5%
		3#	可视黑斑和白锈, 缺陷面积: 1-5%
	216 h	1#	可视黑斑和白锈, 缺陷面积: 10-15%
		2#	可视黑斑和白锈, 缺陷面积: 1-5%
		3#	可视黑斑和白锈, 缺陷面积: 1-5%
	264 h	1#	可视黑斑和白锈, 缺陷面积: 20-25%
		2#	可视黑斑和白锈, 缺陷面积: 1-5%
		3#	可视黑斑和白锈, 缺陷面积: 1-5%
	312 h	1#	可视黑斑和白锈, 缺陷面积: 20-25%
		2#	可视黑斑和白锈, 缺陷面积: 5-10%
		3#	可视黑斑和白锈, 缺陷面积: 5-10%
	360 h	1#	可视黑斑和白锈, 缺陷面积: 20-25%
		2#	可视黑斑和白锈, 缺陷面积: 5-10%
		3#	可视黑斑和白锈, 缺陷面积: 5-10%
	408 h	1#	可视黑斑和白锈, 缺陷面积: 20-25%



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnity and jurisdiction clauses in those conditions. The Company's sole responsibility is to use reasonable care to check the sample(s) provided and to report the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is illegal and offenders will be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (06-756) 8307 5443, or email: CN.Doccheck@sgs.com

3rd Building No.889 Yuhai Road Xuhui District, Shanghai, China 200233 E&E (06-21) 61402553 F&E (06-21) 6465979 www.sgsgroup.com.cn

中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 HL: (06-21) 61402594 HL: (06-21) 5450353 s.gsa.china@sgs.com

Member of the SGS Group (SGS SA)

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

SGS盐雾试验报告



测试报告

No. SHAEC1500689801 Date: Feb. 10, 2015

Page 5 of 14

NW	456 h	2#	可视黑斑和白锈, 缺陷面积: 10-15%
		3#	可视黑斑和白锈, 缺陷面积: 10-15%
		1#	可视黑斑和白锈, 缺陷面积: >50%
	500 h	2#	可视黑斑和白锈, 缺陷面积: 10-15%
		3#	可视黑斑和白锈, 缺陷面积: 10-15%
		1#	可视黑斑和白锈, 缺陷面积: >50%
		2#	可视黑斑和白锈, 缺陷面积: 10-15%
		3#	可视黑斑和白锈, 缺陷面积: 10-15%
	48 h		无可视变化
	72 h		无可视变化
120 h		可视黑斑, 缺陷面积: <1%	
168 h		可视黑斑和白锈, 缺陷面积: 1-5%	
216 h		可视黑斑和白锈, 缺陷面积: 1-5%	
264 h		可视黑斑和白锈, 缺陷面积: 1-5%	
312 h		可视黑斑和白锈, 缺陷面积: 1-5%	
360 h		可视黑斑和白锈, 缺陷面积: 1-5%	
408 h		可视黑斑和白锈, 缺陷面积: 1-5%	
456 h		可视黑斑和白锈, 缺陷面积: 1-5%	
500 h		可视黑斑和白锈, 缺陷面积: 1-5%	

备注 :

(1)这项测试由 SGS 上海材料实验室检测



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, limitation of warranties and indemnification clauses in the General Conditions of Service. The results of the test are based solely on the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is illegal and offenders will be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report relate only to the sample(s) tested.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (06-756) 8307 5443, or email: CN_Doccheck@sgs.com

3rd Building No.889 Yuhai Road Xuhui District, Shanghai, China 200233 F&E (06-21)6402553 F&E (06-21)6495979 www.sgsgroup.com.cn

中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 HL (06-21)61402594 HL (06-21)5450353 s.gsa.china@sgs.com

Member of the SGS Group (SGS SA)

SGS盐雾试验报告

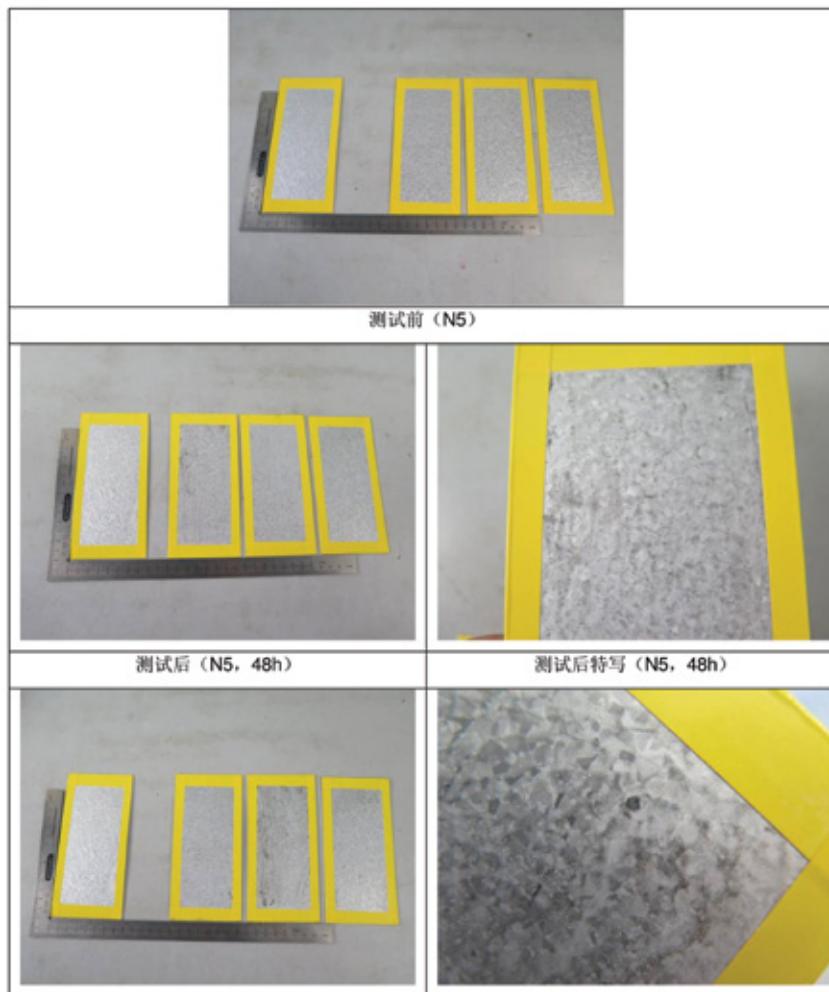


测试报告

No. SHAEC1500689801 Date: Feb. 10, 2015

Page 6 of 14

测试照片:



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Electronic-Document.aspx>. Attention is drawn to the limitation of liability, limitation of warranties and indemnification clauses therein. Attention is also drawn to the fact that the Company's sole responsibility is to make the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is illegal and offenders will be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (06-755) 8307 5443, or email: CN_Doccheck@sgs.com

E&E (06-21) 61402553 F&E (06-21) 6465979 www.sgsgroup.com.cn
HL: (06-21) 61402594 HL: (06-21) 5450353 s.gsa.china@sgs.com

Member of the SGS Group (SGS SA)

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

SGS盐雾试验报告



测试报告

No. SHAEC1500689801 Date: Feb. 10, 2015

Page 14 of 14

测试后 (NW, 408h)	测试后特写 (NW, 408h)
测试后 (NW, 456h)	测试后特写 (NW, 456h)
测试后 (NW, 500h)	测试后特写 (NW, 500h)

报告结束



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Electronic-Document.aspx>. Attention is drawn to the limitation of liability, limitation of warranties and indemnification clauses contained in the General Conditions of Service. The results relate solely to the items tested and the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is illegal and offenders will be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (06-755) 8307 5443, or email: CN_Doccheck@sgs.com

3rd Building No.889 Yehan Road Xuhui District, Shanghai, China 200233 TEL: (06-21) 61402553 FAX: (06-21) 6465979 www.sgsgroup.com.cn

中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 HL: (06-21) 61402594 HL: (06-21) 54500353 E: sgs.china@sgs.com

Member of the SGS Group (SGS SA)

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，可至宝钢在线（<http://esales.baosteel.com>）主页页脚处，点击“质量保证”进入后，可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://esales.baosteel.com>.



测试报告

No. SHAEC1407340802 日期: 2014年05月08日 第1页,共6页

宝山钢铁股份有限公司
上海同济路1800号

以下测试之样品是由申请者所提供及确认：无铬耐指纹(镀层+涂层)

SGS工作编号：	SP14-012141 - SH
样品接收日期：	2014年04月28日
测试周期：	2014年04月28日 - 2014年05月05日
测试要求：	根据客户要求测试
测试方法：	请参见下一页
测试结果：	请参见下一页
结论：	基于所送样品的指定部位进行的测试，镉、铅、汞、六价铬的测试结果符合欧盟RoHS指令2002/95/EC 的重订指令2011/65/EU附录II的限值要求。

通标标准技术服务有限公司
授权签名


Marry Ma 马广媛

批准签署人

本报告是编号为SHAEC1407340801 报告的中文版本。



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to Client and the Client shall be responsible for any claim arising from the use of all or part of the information in these transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /Inspection report & certificate, please contact us at telephone: (86-755) 8307 5443, or email: CR_Doccheck@sgs.com

3rd Building No.889 Yehua Road Xuhui District,Shanghai,China 200233 E&E (86-21) 61402533 F&E (86-21) 64963679 www.sgsgroup.com.cn
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 HL: (86-21) 61402594 HL: (86-21) 54500353 e: sgs.china@sgs.com

Member of the SGS Group (SGS SA)

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

符合RoHS指令的SGS环保报告



测试报告

No. SHAEC1407340802

日期: 2014年05月08日 第2页,共6页

测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
SN1	SHA14-073408.019	银灰色金属板
SN2	SHA14-073408.020	银灰色金属板

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 检测极限值
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

RoHS指令2011/65/EU

测试方法: (1) 酸洗脱镀层, 参考IEC62321-5:2013, 用ICP-OES测定镉、铅的含量
 (2) 酸洗脱镀层, 参考IEC62321-4:2013, 用ICP-OES测定汞的含量
 (3) 参考IEC 62321:2008, 用点测试法/紫外-可见分光光度计比色法测定六价铬的含量

测试项目	限值	单位	MDL	019
铅(Pb)	1000	mg/kg	10	ND
镉(Cd)	100	mg/kg	10	ND
汞(Hg)	1000	mg/kg	10	ND
六价铬(CrVI)	-	-	◇	阴性

备注:

- (1) 最大允许极限值引用自指令2011/65/EU 附录II.
- (2) 点测试法:
 阴性= 未检测到六价铬, 阳性= 检测到六价铬;
 (当点测试结果为阴性或无法确定时, 将采用沸水萃取法作进一步的结果验证.)
 ◇沸水萃取法:
 阴性 = 未检测到六价铬
 阳性 = 检测到六价铬; 表明50 cm²表面积的被测试样品的沸水萃取液中六价铬的浓度等于或大于0.02 mg/kg
 由于未获知样品的存储条件和生产日期, 样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。

全氟辛烷磺酸基化合物(PFOS)和全氟辛酸(PFOA)

测试方法: 参照US EPA 3550C: 2007方法测定, 采用HPLC-MS进行分析.



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-Document.aspx>. Attention is drawn to the limitation of liability, indemnity and jurisdiction clauses in those conditions. Any statement made in this document concerning the results of analyses or tests carried out by the Company is based on the information provided by the Client and on the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized copying, for any reason, of all or part of the content or appearance of this document is illegal and may be subject to prosecution to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CH_Doccheck@sgs.com

3rd Building, No.889 Yizhan Road, Xuhui District, Shanghai, China 200233 TEL: (86-21) 61402553 FAX: (86-21) 64950579 www.sgsgroup.com.cn

中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 HL: (86-21) 61402594 HL: (86-21) 54500353 e: sgs.china@sgs.com

Member of the SGS Group (SGS SA)

符合RoHS指令的SGS环保报告



测试报告

No. SHAEC1407340802

日期: 2014年05月08日 第3頁,共6頁

测试项目	限值	单位	MDL	Q20
全氟辛烷磺酰基化合物 (PFOS)- 酸,金属盐和酰胺	1	µg/m²	1	ND
全氟辛酸 (PFOA)	-	µg/m²	1	ND

备注:

最大允许限制引用自(EC) No. 850/2004 的修订指令欧盟决议(EU) No. 757/2010.



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Electronic-Documents.aspx>. Attention is drawn to the limitation of liability, limitation of warranties and indemnification sections of the General Conditions of Service. Any statement of fact made in this document relates to the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized copying, forgery or counterfeiting of this document is illegal and offenders will be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CH.Dscechsk@sgs.com

3rd Building, No.889 Yizhan Road, Xuhui District, Shanghai, China 200233 t: E&E (86-21) 61402553 f: E&E (86-21) 64950579 www.sgsarep.com.cn

中国 - 上海 - 徐汇区宜山路889号3号楼 邮编: 200233 H: (86-21) 61402594 HL: (86-21) 54500353 e: sgs.china@sgs.com

Member of the SGS Group (SGS SA)

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

宝钢股份 ISO 9001 认证书



宝钢股份 ISO 9001 认证书

Certificate No: FM 70107

Location

Baoshan Iron & Steel Co., Ltd.

Fujin Road

Baoshan District

Shanghai

201900

China

宝山钢铁股份有限公司

中国

上海

宝山区

富锦路

邮编: 201900

Baoshan Iron & Steel Co., Ltd.

No. 2288 Jiangyang Nan Road

Baoshan District

Shanghai

200431

China

宝山钢铁股份有限公司

中国

上海

宝山区

江杨南路2288号

邮编: 200431

Registered Activities

The design and manufacture of steel products, including slabs, ingots, blooms, billets, rods and wires, hot rolled steel sheet and coils, cold rolled coated and uncoated sheet and coils, electrical steel sheet and coils, seamless tubes, coated and uncoated UOE and HFW welded pipes and heavy plates.

钢铁产品的设计和制造，包括钢坯、钢锭、大方坯、小方坯、圆钢、线材、热轧板卷、冷轧板卷（含涂层产品）、电工钢板卷、无缝钢管、HFW及UOE焊管（含涂层产品）和厚板。

The manufacture of cold rolled coated and uncoated sheet and coils.

冷轧板卷（含涂层产品）的制造。

Originally registered: 07/10/2002

Latest Issue: 03/11/2012

Expiry Date: 02/11/2015

Page: 2 of 2

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.

An electronic certificate can be authenticated [online](#).

Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +86 10 65157060.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008

requirements may be obtained by consulting the organization.

This certificate is valid only if provided original copies are in complete set.

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP, Tel: + 44 845 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

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

宝钢股份 ISO TS 16949 认证书



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO/TS 16949:2009

This is to certify that: Baoshan Iron & Steel Co., Ltd.
Fujin Road
Baoshan District
Shanghai
201900
China

宝山钢铁股份有限公司
中国
上海
宝山区
富锦路
邮编：201900

Holds Certificate No: TS 30373

and operates a Quality Management System which complies with the requirements of ISO/TS 16949:2009 for the following scope:

The design and manufacture of steel products, including slabs, ingots, blooms, billets, rods and wires, hot rolled steel sheet and coils, cold rolled coated and uncoated sheet and coils, electrical steel sheet and coils, seamless tubes.

Permitted Exclusions: None.

钢铁产品的设计和制造，包括钢坯、钢锭、大方坯、小方坯、圆钢、线材、热轧板卷、冷轧板卷（含涂层产品）、电工钢板卷和无缝钢管。

允许删减：无。

John

For and on behalf of BSI:

Managing Director, BSI (China), Dr. Yi Min Gao

Originally registered: 03/11/2012

Latest Issue: 03/11/2012

Expiry Date: 02/11/2015

IATF Number: 0149569

Page: 1 of 2



"making excellence a habit"

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.

An electronic certificate can be authenticated [online](#).

Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +86 10 65157060.

Further clarifications regarding the scope of this certificate and the applicability of ISO/TS 16949:2009 requirements may be obtained by consulting the organization.

This certificate is valid only if provided original copies are in complete set.

IATI Contracted Office: BSI Group America Inc., 13110 Sunset Hills Road, Suite 300, Herndon, VA20170, USA

China Headquarters: Floor 20 East Ocean Center, No. 24A Jianguomenwai Street, Beijing 100004, P. R. China.
A Member of the RSI Group of Companies

宝钢股份 ISO TS 16949 认证书

Certificate No: TS 30373

Location

Baoshan Iron & Steel Co., Ltd.
Fujin Road
Baoshan District
Shanghai
201900
China
宝山钢铁股份有限公司
中国
上海
宝山区
富锦路
邮编: 201900

Registered Activities

The design and manufacture of steel products, including slabs, ingots, blooms, billets, rods and wires, hot rolled steel sheet and coils, cold rolled coated and uncoated sheet and coils, electrical steel sheet and coils, seamless tubes.
Including site extensions:
Baoshan Iron & Steel Co., Ltd.
No. 2288 Jiangyang Nan Road, Baoshan District, Shanghai 200431 China
The manufacture of cold rolled coated and uncoated sheet and coils.
钢铁产品的设计和制造，包括钢坯、钢锭、大方坯、小方坯、圆钢、线材、热轧板卷、冷轧板卷（含涂层产品）、电工钢板卷和无缝钢管。
包括扩充场所：
宝山钢铁股份有限公司
中国上海宝山区江杨南路2288号
冷轧板卷（含涂层产品）的制造。

Originally registered: 03/11/2012
IATF Number: 0149569

Latest Issue: 03/11/2012

Expiry Date: 02/11/2015

Page: 2 of 2

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
An electronic certificate can be authenticated [online](#).
Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +86 10 65157060.
Further clarifications regarding the scope of this certificate and the applicability of ISO/TS 16949:2009 requirements may be obtained by consulting the organization.
This certificate is valid only if provided original copies are in complete set.

IATF Contracted Office: BSI Group America Inc., 12110 Sunset Hills Road, Suite 200, Reston, VA20190, USA.

China Headquarters: Floor 20 East Ocean Center, No. 24A Jianguomenwai Street, Beijing 100004, P. R. China.
A Member of the BSI Group of Companies.

Info for order

订货所需信息

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
<http://www.baosteel.com>

BAOSHAN IRON & STEEL CO., LTD.
<http://www.baosteel.com>

冷板销售部
Cold Sheet Sales Department
地址：上海宝山漠河路151号
邮编：201999
电话：021-26649834
传真：021-26645329

客户与产品服务部
Customer and Product Service Department
地址：上海宝山漠河路151号
邮编：201999
电话：021-26645552
传真：021-26645299

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

宝钢在线
Baosteel Online
<http://esales.baosteel.com>

国内贸易公司 Domestic Sales Channels

上海宝钢钢材贸易有限公司 电话：021-50509696 传真：021-68404618	广州宝钢南方贸易有限公司 电话：020-32219999 传真：020-32219555	北京宝钢北方贸易有限公司 电话：010-56512000 传真：010-56512199	成都宝钢西部贸易有限公司 电话：028-85335388 传真：028-85335680
武汉宝钢华中贸易有限公司 电话：027-84298800 传真：027-84298224	沈阳宝钢东北贸易有限公司 电话：024-31391158 传真：024-31391160	上海宝钢商贸有限公司 电话：021-26640781 传真：021-26640700	上海宝钢浦东国际贸易有限公司 电话：021-26640606 传真：021-26640666

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: 0081-3-3237-9121 FAX: 0081-3-3237-9123	宝和通商首尔事务所 HOWA TRADING CO., LTD., SEOUL OFFICE TEL: 0082-2-5080893 FAX: 0082-2-5080891	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

宝钢新加坡贸易有限公司 BAosteel SINGAPORE PTE LTD. TEL: 0065-63336818 FAX: 0065-63336819	宝钢印度公司 BAosteel INDIA COMPANY PRIVATE LTD. TEL: 91-22-30071700 FAX: 91-22-30071777	越南代表处 VIETNAM OFFICE TEL: 0084-8-39100126 FAX: 0084-8-39100124	泰国代表处 THAILAND OFFICE TEL: 0066-2-6543008 FAX: 0066-2-6543010
---	--	--	---

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

宝钢欧洲有限公司 BAosteel Europe GmbH TEL: 0049-40-41994101 FAX: 0049-40-41994120	宝钢中东代表处 BAosteel Middle East Representative Office TEL: 00971-4-8840458 FAX: 00971-4-8840485	宝钢西班牙有限公司 BAosteel España, S.L. TEL: 0034-93-4119325 FAX: 0034-93-4119330
宝钢意大利钢材集散中心有限公司 BAosteel Italia Distribution Center SPA TEL: 0039-010-5308872 FAX: 0039-010-5308895	宝钢东欧代表处 BAosteel Central and East Europe Office TEL: 0048-32-7315012 FAX: 0048-32-7315011	

美洲大区 America Region

宝钢美洲贸易有限公司 BAosteel America Inc. TEL: 001-201-3073355 FAX: 001-201-3073358	休斯顿代表处 Houston Office TEL: 001-281-4847333 FAX: 001-281-4842655	洛杉矶代表处 Los Angeles Office TEL: 001-949-7526789 FAX: 001-949-7521234
宝钢巴西贸易有限公司（宝美巴西代表处） BAosteel do Brazil Pte Ltda. TEL: 0055-21-25311363 FAX: 0055-21-25310298		

