

ICS 77.140.50

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**NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC
OF CHINA**

中华人民共和国国家标准

GB 4171-2008

Replace GB/T 4171, GB/T 4172-2000, GB/T 18982-2003

**Atmospheric Corrosion Resisting
Structural Steel**

耐候结构钢

Issued on October 10, 2008

Implemented on May 01, 2009

**Issued by General Administration of Quality Supervision, Inspection
and Quarantine of the People's Republic of China**

**Standardization Administration of the People's Republic of
China**

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Foreword

This standard is revised by integration from the standards “Superior Atmospheric Corrosion Resisting Structural Steel” GB/T 4171-2000, “*Atmospheric Corrosion Resisting Steel for Welded Structure*” GB/T 4172-2000 and “*Corrosion Resistant Steel Plates and Strips for Container*” GB/T 18982-2003 in combination of the development and application condition of atmospheric corrosion resisting steel in China and by reference to the following standards: “*Hot Rolled Products of Structural Steels—Technical Delivery Conditions for Structural Steels with Improved Atmospheric Corrosion Resistance*” EN 10025-5:2004, “*Structural Steels With Improved Atmospheric Corrosion Resistance*” “*Continuously Hot-Rolled Steel Sheet of Structural Quality With Improved Atmospheric Corrosion Resistance*” ISO 4952:2006, ISO 5952:2005, “*Standard Specification for High-Strength Low-Alloy Structural Steel*” ASTM A 242/A 242 M-04, “*Standard Specification for High-Strength Low-Alloy Structural Steel, up to 50 ksi [345MPa] Minimum Yield Point, with Atmospheric Corrosion Resistance*” ASTM A 588/A 588 M-05, “*Standard Specification for Steel, Sheet and Strip, High-Strength, Low- Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance*” ASTM A 606-04, “*Standard Specification for High-Strength Low-Alloy Structural Steel Plate with Atmospheric Corrosion Resistance*” ASTM A 871/A 871 M-03, “*Hot-rolled Atmospheric Corrosion Resisting Steels For Welded Structure*” JIS G 3114:2004 and “*Superior Atmospheric Corrosion Resisting Rolled Steels*” JIS G 3125:2004.

This standard replaces “*Superior Atmospheric Corrosion Resisting Structural Steel*” GB/T 4171- 2000, “*Atmospheric Corrosion Resisting Steel for Welded Structure*” GB/T 4172-2000 and “*Corrosion Resistant Steel Plates and Strips for Container*” GB/T 18982-2003.

Compared with above three standards, the following main technical contents are revised:

- Renaming the standard;
- Reenacting steel designations;

— Reenacting the chemical composition and mechanical property of designations;

Adding the annex about the evaluation on relative resistance to atmospheric corrosion.

Annex A, Annex B, Annex C and Annex D in this standard are informative.

This standard was proposed by China Iron & Steel Association.

This standard is under the jurisdiction of the National Technical Committee on Iron and Steel of Standardization Administration of China.

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The previous editions of the standards replaced by this standard are as:

— GB/T 4171-84, GB/T 4171-2000;

— GB/T 4172-84, GB/T 4172-2000;

— GB/T 18982-2003.

Atmospheric Corrosion Resisting Structural Steel

1 Scope

This standard specifies the dimension, appearance, weight and permissible deviation, technical requirements, test methods, test rules, packing, marking and quality certificate of atmospheric corrosion resisting structural steel.

This standard is applicable to hot-rolled and cold rolled steel plate, flat strap and section steel with resistance to atmospheric corrosion capacity for vehicle, bridge, freight container, building, tower pier and other structure appliance. Atmospheric corrosion resisting steel can be used for making bolted connection, rivet joint and welded structure component.

2 Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this code. For dated reference, subsequent modification to, or revisions of, any of these publications do not apply. However, all parties coming to an agreement according to this standard are encouraged to study whether the latest edition of these documents is applicable. For undated references, the latest edition of the referenced document applies.

GB/T 222 “Permissible Tolerances for Chemical Composition of Steel Products”

GB/T 223.3 “Methods for Chemical Analysis of Iron, Steel and Alloy—The Diantipyrylmethane Phosphomolybdate Gravimetric Method for the Determination of Phosphorus Content”

GB/T 223.5 “Steel and Iron—Determination of Acid-Soluble Silicon and Total Silicon Content— Reduced Molybdosilicate Spectrophotometric Method”

GB/T 223.9 “Iron Steel and Alloy—Determination of Aluminium Content—Chrom Azurol S Photometric Method”



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