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

MZ/T 109-2018

**Supportforsignsofgeographicalname
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that some of the content of this document may involve patents. The issuing authority of this document is not responsible for identifying these patents.

This standard was proposed and managed by the National Geographical Standardization Technical Committee (SAC/TC233).

This standard was drafted. Place Name Institute of the Ministry of Civil Affairs.

1 Scope

This standard specifies the requirements, test methods, inspection rules, packaging, etc. for the support for place name signs.

This standard applies to the production, use, and quality assessment of support members for place name signs on metallic steel components.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document for undated references, the latest version (including all amendments) applies to this document.

GB/T 228.1 Tensile test for metallic materials-Part 1. Test method at room temperature
GB/T 1732 Determination of impact resistance of paint film GB/T 2406.1
Plastics-Determination of combustion behavior by oxygen index method-Part 1. Guidelines
GB/T 8162 seamless steel pipe for structure GB/T 1147 Determination of liquid chemical resistance of plastics GB/T 13793 Straight seam welded steel pipe GB/T 16938 General technical requirements for fastener bolts, screws, studs and nuts GB 17733-2008 Place Name Sign GB/T 18226 Technical requirements for corrosion protection of steel components for highway traffic engineering GB/T 26941.1-2011 Isolation barrier Part 1. General

3 Terms and definitions

The following terms and definitions apply to this document.

Signsofgeographicalnames Facilities that indicate the proper name and related information of a geographic entity.

[GB 1733-2008, definition 3.2] 3.2 Support A component that supports, connects and fastens nameplates.

4.1 Settings

4.1.1

The support for place name signs is generally set up in a column or cantilever manner.

4.1.2

Select the pre-buried or direct-buried method according to the setting needs.

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4.2 Structure

4.2.1

The support members should generally be made of metal steel members, and aluminum alloy profiles, reinforced concrete columns, or wooden columns can also be used as required. Metal when steel members are made of non-corrosive materials, anti-corrosion treatment such as galvanizing or plastic coating should be performed.

4.2.2

The shape and size of metal steel components shall meet the design requirements, and the outer diameter, thickness and bending of seamless steel tubes for structures shall meet According to the requirements of GB/T 8162, the outer diameter, thickness and bending of straight seam welded steel pipes shall meet the requirements of GB/T 13973.

4.2.3

Cover the column cap with anticorrosive coating as required. The structure size of the column cap shall meet the design requirements.

4.3 Appearance

4.3.1

The surface of the support should be smooth and free from dirt, and there should be no obvious defects such as rust, cracks, damage, scratches, deformation, delamination, and scarring.

4.3.2

The appearance color of the support should be coordinated with the sign board.

4.3.3

The galvanized layer shall be uniform and complete, consistent in color and smooth, and shall be free from defects such as sagging, dripping or excessive agglomeration, missing plating and welds.

4.3.4

The plastic coating shall be uniform, smooth, continuous, and free from defects such as small holes, space, pores, cracks, peeling and other skin distinguishable by naked eyes.

4.4.1 Galvanization

The use of metal steel components as support members, the coating quality should meet the requirements of GB/T 18226, tested in accordance with the method specified in 5.3.1, the amount of galvanization should meet the following requirements.

a) For large components such as columns, cantilevers, flanges, the amount of galvanization

should not be less than 600g/m²;

b) For small components such as fasteners, the amount of zinc plating should not be less than 350g/m².

4.4.2 Galvanized coating uniformity

After testing according to the method specified in 5.3.2, the surface of the galvanized layer shall be uniform and free of metallic copper deposits.

4.4.3 Adhesive properties of galvanized layer

The galvanized layer of the galvanized component and the base metal should be tightly connected. After testing according to the method specified in 5.3.3, the galvanized layer should not peel.

Such as peeling, bulging, cracking or delamination to the extent that it can be wiped off with bare fingers.

4.4.4 Impact resistance of plastic coating

After the test according to the method specified in 5.3.4, there were no obvious cracks, wrinkles, and peeling of the plastic coating except the impacted part.

4.4.5 Bending resistance of plastic coating

After testing in accordance with the method specified in 5.3.5, the plastic coating shall be free from visible cracks or peeling.

4.4.6 Adhesive properties of plastic coating

After testing according to the method specified in 5.3.6, the thermoplastic powder coating is not lower than level 2 and the thermosetting powder coating is not lower than level 0.

4.4.7 Chemical resistance of plastic coating

After testing according to 5.3.7, the plastic coating should be free of bubbles, softening, and loss of adhesion.

4.4.8 Flame retardancy of plastic coating

The plastic coating and polymer plastic components shall be flame-resistant materials. After testing according to the method specified in 5.3.8, their oxygen index shall be greater than 27.

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