Designation: A 929/A 929M – 01

Standard Specification for Steel Sheet, Metallic-Coated by the Hot-Dip Process for Corrugated Steel Pipe[1]

This standard is issued under the fixed designation A 929/A 929M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers steel sheet used in the manufacture of corrugated steel pipe for storm sewers, culverts, drains, and similar uses. The sheet is metallic coated by the hot-dip process. Material for this use is furnished in coils, flat in cut lengths, and corrugated in cut lengths. Many metallic coated materials are covered in this material specification. Users must determine which product best serves their needs. Five different metallic coatings are included:

1.1.1 Zinc-coated (galvanized),

1.1.2 Zinc-5 % aluminum-Mischmetal (Zn-5Al-MM) alloy coated,

1.1.3 55 % aluminum-zinc (55Al-Zn) alloy coated,

1.1.4 Aluminum-coated Type 2 (aluminized Type 2), and

1.1.5 Aluminum-coated Type 1 (aluminized Type 1).

1.2 Zinc-coated sheet is available in two coating weights [masses]. Other metallic coatings are available in one coating weight [mass] only.

1.3 The values stated in either inch-pound units or SI units are to be regarded separately as the standard. Within the text, the SI units are shown in brackets. The values stated in each system are not equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with the specification.

2. Referenced Documents

2.1 *ASTM Standards:*

A 90/A 90M Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings[2]

A 428/A 428M Test Method for Weight [Mass] of Coating on Aluminum-Coated Iron or Steel Articles[2]

A 902 Terminology Relating to Metallic Coated Steel Products[2]

A 924/A 924M Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process[2]

B 750 Specification for Zinc-5 % Aluminum-Mischmetal Alloy (UNS Z38510) in Ingot Form for Hot-Dip Coatings[3]

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications[4]

3. Terminology

3.1 *Definitions:* For definitions of terms used in this specification, refer to Terminology A 902. The following definitions are as stated in that terminology:

3.1.1 *fabricator,, n— as related to corrugated metal pipe,* (*1*) the organization that produces the finished pipe; or (*2*) *for structural plate pipe,* the organization that processes flat sheets and other items necessary for the field assembly of finished products.

3.1.2 *manufacturer,, n— as related to corrugated metal pipe,* the organization that produces the metal sheet from which pipe is made.

3.1.3 *purchaser,, n—as related to corrugated metal pipe,* the person or agency that purchases the finished pipe.

3.1.4 *Discussion*—With regard to this specification for sheet for corrugated steel pipe, the fabricator may also be considered as the purchaser of the sheet, where that term is used in this specification. Such interpretation would not restrict the purchaser of the finished pipe from enforcing any provisions of this specification.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *minimized coating structure,, n*—a coating characterized by a finer metallurgical coating structure obtained by a treatment designed to restrict the formation of the normal coarse grain structure formed during solidification of the Zn-5Al-MM coating.

3.2.2 *regular coating structure,, n*—the normal coating structure resulting from unrestricted grain growth during normal solidification of the Zn-5Al-MM coating.

3.3 *Abbreviations:*

3.3.1 Al T2—aluminum-coated Type 2

3.3.2 Al T1—aluminum-coated Type 1

3.3.3 55Al-Zn—55 % aluminum-zinc alloy

3.3.4 Zn—zinc

[1] This specification is under the jurisdiction of ASTM Committee A05 on Metallic Coated Iron and Steel Products and is the direct responsibility of Subcommittee A05.11 on Sheet Specifications.

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[2] *Annual Book of ASTM Standards,* Vol 01.06.

[3] *Annual Book of ASTM Standards,* Vol 02.04.

[4] *Annual Book of ASTM Standards,* Vol 14.02.

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