



Standard Specification for Steel Sheet, Metallic Coated and Polymer Precoated for Corrugated Steel Pipe¹

This standard is issued under the fixed designation A 742/A 742M; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope*

1.1 This specification covers polymer precoated steel sheet for corrugated steel pipe (CSP) which is coated after metallic coating on continuous lines by coil coating (roller coating or laminating) processes. The metallic coating is either zinc, 55 % aluminum-zinc alloy, or zinc-5 % aluminum-mischmetal alloy. Sheet for this purpose is furnished flat in coils, flat in cut lengths, or corrugated in cut lengths, all being protected by a mill-applied polymer coating on both sides.

1.2 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.

1.3 The following precautionary caveat refers only to the test method portion, Section 9, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

- A 929/A 929M Specification for Steel Sheet, Metallic-Coated by the Hot-Dip Process for Corrugated Steel Pipe²
- D 543 Practices for Evaluating the Resistance of Plastics to Chemical Reagents³
- D 658 Test Method for Abrasion Resistance of Organic Coatings by the Air-Blast Abrasion Test⁴
- D 1005 Test Methods for Measurement of Dry-Film Thickness of Organic Coatings Using Micrometers⁴
- D 2794 Test Method for Resistance of Organic Coatings on

the Effects of Rapid Deformation (Impact)⁴

G 22 Practice for Determining Resistance of Plastics to Bacteria⁵

G 23 Practice for Operating Light- and Water-Exposure Apparatus (Carbon-Arc Type) for Exposure of Nonmetallic Materials³

G 62 Test Methods for Holiday Detection in Pipeline Coatings⁴

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *fabricator*—in this specification, fabricator refers to the producer of the pipe.

3.1.2 *manufacturer*—in this specification, manufacturer refers to the producer of the sheet.

3.1.3 *purchaser*—in this specification, purchaser refers to the purchaser of the finished pipe.

3.2 Abbreviations: Abbreviations:

3.2.1 55 Al-Zn—55 % aluminum-zinc.

3.2.2 MM—mischmetal.

3.2.3 Zn-5 Al-MM—zinc-5 % aluminum-mischmetal.

4. Classification

4.1 The polymer coating is classified by grade corresponding to the thickness in mils (thousandths inch) on each side in inch-pound units and the thickness in micrometres on each side in SI units.

Grade	Coating Thickness	
	in.	[μ m]
10/10 [250/250]	0.010/0.010	[250/250]

4.2 Any combination of polymer coating thickness other than shown above is subject to agreement between the manufacturer and purchaser or fabricator.

5. Ordering Information

5.1 The polymer precoated sheet covered by this specification shall be ordered only to the specified thickness listed in Table 1. The specified thickness is based on the thickness of the metallic-coated steel sheet, not including the thickness of the polymer coating.

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 08.01.

⁴ Annual Book of ASTM Standards, Vol 06.01.

⁵ Annual Book of ASTM Standards, Vol 14.02.

*A Summary of Changes section appears at the end of this standard.