

1. Metallic-Coated Products and Specifications

GalvInfoNote

ASTM Standards for Coated Sheet Products

1.5

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Introduction

The most common way to order coated steel sheet products from the steel manufacturers is to refer to ASTM Standards. These standards, which are written by voluntary standards writing committees within the ASTM International organization, cover all of the details related to ordering coated steel sheet products. These details include:

- Coating type
- Coating weight [mass]
- Surface finish
- Steel strength
- Steel ductility/formability
- Steel dimensions
 - Thickness
 - Width
 - Flatness
- Tolerances – steel dimensions, coating thickness, etc.

Refer to GalvInfoNote 1.2 for a full explanation of the hot-dip coated sheet products covered by ASTM standards.

Coating Steel Product Standards

For coated-steel sheet products, the standards are written by ASTM Committee A05, a body comprised of knowledgeable volunteers who oversee the development and revision of the specific standards related to coated steel products.

The common terms that are included in many customer requirements such as *G60*, *A40*, *Commercial Steel (CS)*, *Deep Drawing Steel (DDS)*, etc. all have their origin within the appropriate ASTM Standard. If you need to learn the meaning of many of the terms used for coated steel sheet products, the best thing to do is obtain a copy of the appropriate ASTM Standard. These can be purchased from ASTM International.

Ways to contact ASTM International:

- Phone: 610-832-9500
- E-Mail: service@astm.org
- Website: www.astm.org

ASTM Volume 01.06 contains all the standards related to coated steel products. It can be purchased in book form, or as an on-line volume. Individual standards can also be purchased separately. ASTM offers both printed and electronic versions of all standards.

The table on page 3 of this GalvInfoNote contains a list of coated steel sheet standards. This list covers both hot-dip coated products and electroplated products. Also, see GalvInfoNote 1.2 for an in-depth description of the ASTM hot-dip coated sheet standards.

In addition to these “product” standards, there are two “general requirement” standards that cover issues such as:

- Ordering information
- Tests for coating properties
- Tests for mechanical properties
- Dimensions and permissible variations

The two documents that cover the general requirement issues are:

1. ASTM Standard A924/A924M for hot-dip coated steel sheet products.
2. ASTM Standard A917 for the electroplated coated steel sheet products.

When using ASTM standards for ordering purposes, be aware of the requirements in both the specific “product” standard and the appropriate “general requirements” standard.

Inch-Pound versus SI

When an ASTM standard number is written as, for example, A653/A653M, it means it is a “Dual” standard and allows the product to be ordered in either “Inch-Pound” (English) units, or “SI” (Metric) units. The two sets of units are to be regarded separately as standard units. In the text the SI units are shown in brackets. Keep in mind that the values stated in each system are not exact equivalents and each system must be used independently of the other. In this example, when ordering galvanize to inch-pound units, specify A653. When ordering to SI units, specify A653M.

Almost all ASTM standards for coated sheet products are dual specifications. The exceptions are some of the electrogalvanize products, viz., A917 and A918. These standards, while not having an “M” after the number, specify only SI units.

ASTM Standards for Coated Sheet Products

Coated Sheet Common Name	ASTM Standard	Comments
Hot-dip galvanize	A653/A653M A1063/A1063M	Zinc-coated sheet
Hot-dip galvanneal	A653/A653M	Zinc-iron alloy-coated sheet
Electrogalvanize	A879/A879M	Electroplated zinc-coated sheet
55% Al-Zn Alloy	A792/A792M	55% aluminum/45% zinc alloy-coated sheet
Zn-5% Al Alloy	A875/A792M	95% zinc/5% aluminum alloy-coated sheet
Zn-Al-Mg Alloy	A1046/A1046M	Zinc/5-11% aluminum/2-4% magnesium alloy-coated sheet
Aluminized	A463/A463M	2 types of aluminum coatings <ul style="list-style-type: none"> • Aluminum/5% -11% silicon alloy-coated sheet • Pure aluminum-coated sheet
Terne	A308/A308M	Lead/tin alloy-coated sheet
Electroplated Zinc/Nickel	A918	Zinc/9-16% nickel alloy electroplated coated sheet

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