

Introduction

Today, 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 a voluntary standards-writing committee within the ASTM International organization, cover all of the details related to ordering coated steel sheet products. These details include:

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

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. Thus, 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 the ASTM International organization.

Ways to contact ASTM International:

- ❑ Phone: 610-832-9500
- ❑ 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 as an entire volume, or individual standards can be purchased separately.

The table on page 3 of this GalvInfoNote contains a list of the standards related to coated steel sheet products. The standards cover both hot-dip coated products and electroplated products. Also, see GalvInfoNote #4 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 A 924/A 924M for hot-dip coated steel sheet products.
2. ASTM Standard A 917 for the electroplated coated steel sheet products.

When using ASTM standards for ordering purposes, one needs to be aware of the specific 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, A 653/A 653M, 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 A 653. When ordering to SI units, specify A 653M.

Almost all ASTM standards for coated sheet products are dual specifications. The exceptions are some of the electrogalvanize products, viz., A 917 and A 918. These standards, while not having an “M” after the number, specify only SI units. The products made using these standards are used almost exclusively for automotive parts and follow the auto industry practice of using only SI units.

ASTM Standards for Coated Steel Sheet Products

Coated Sheet Common Name	ASTM Standard	Comments
Hot-dip galvanized	A 653/A 653M	Zinc-coated sheet
Hot-dip galvanized	A 653/A 653M	Zinc-iron alloy-coated sheet
Electrogalvanized	A 591/A 591M	Thin electroplated zinc-coated sheet
Electrogalvanized	A 879/A 879M	Heavier electroplated zinc-coated sheet
Galvalume [®]	A 792/A 792M	55% aluminum/45% zinc alloy-coated sheet
Galfan [®]	A 875/A 792M	95% zinc/5% aluminum alloy-coated sheet
Aluminized	A 463/A 463M	2 types of aluminum coatings <ul style="list-style-type: none"> • pure aluminum-coated sheet • aluminum/5% -11% silicon alloy-coated sheet
Terne	A 308/A 308M	Lead/tin alloy-coated sheet
Electroplated Zinc/Nickel	A 918	Zinc/9-16% nickel alloy electroplated coated sheet

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