1. Metallic-Coated Products and Specifications

GalvInfoNote

ASTM Standards for Coated Sheet Products

REV 1.2 AUG 2017

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:

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

<table>
<thead>
<tr>
<th>Coated Sheet Common Name</th>
<th>ASTM Standard</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot-dip galvanize</td>
<td>A653/A653M</td>
<td>Zinc-coated sheet</td>
</tr>
<tr>
<td></td>
<td>A1063/A1063M</td>
<td></td>
</tr>
<tr>
<td>Hot-dip galvanneal</td>
<td>A653/A653M</td>
<td>Zinc-iron alloy-coated sheet</td>
</tr>
<tr>
<td>Electrogalvanize</td>
<td>A879/A879M</td>
<td>Electroplated zinc-coated sheet</td>
</tr>
<tr>
<td>55% Al-Zn Alloy</td>
<td>A792/A792M</td>
<td>55% aluminum/45% zinc alloy-coated sheet</td>
</tr>
<tr>
<td>Zn-5% Al Alloy</td>
<td>A875/A792M</td>
<td>95% zinc/5% aluminum alloy-coated sheet</td>
</tr>
<tr>
<td>Zn-Al-Mg Alloy</td>
<td>A1046/A1046M</td>
<td>Zinc/5-11% aluminum/2-4% magnesium alloy-coated sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 types of aluminum coatings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Aluminum/5%-11% silicon alloy-coated sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pure aluminum-coated sheet</td>
</tr>
<tr>
<td>Aluminized</td>
<td>A463/A463M</td>
<td></td>
</tr>
<tr>
<td>Electroplated Zinc/Nickel</td>
<td>A918</td>
<td>Zinc/9-16% nickel alloy electroplated coated sheet</td>
</tr>
</tbody>
</table>