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Standard Specification for Steel Sheet, Zinc-Nickel Alloy Coated by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface¹

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1. Scope

1.1 This specification covers zinc-nickel alloy coatings applied by the electrolytic process to hot-rolled and cold-rolled steel sheet. The coating has a smooth, spangle-free surface. The zinc-nickel-coated sheet covered in this specification is produced in a range of coating masses to provide coatings that are compatible with the anticipated service life required. The coating mass varies, from very thin coatings that are usually painted to provide good service, to relatively heavy masses that provide good corrosion resistance in the bare (unpainted) condition. The composition range is from 9 to 16 % nickel, by weight, with the balance being zinc.

1.2 The product shall be coated on one or both surfaces ~~and may have with~~ equal or differential coating masses on the two surfaces. Sheet coated with equal coating masses on each surface ~~would have~~ has similar levels of corrosion protection on each surface. Often, however, a higher level of corrosion protection is required on one surface than is required on the other. ~~† In these situations, one surface may have~~ shall be specified with a heavier coating mass than the other. The light-coated (or uncoated) surface is typically painted Either surface, when specified to be painted, will provide additional corrosion protection as compared to an unpainted surface.

1.3 This coating process has essentially no effect on the base metal mechanical properties, ~~and can be used~~ use is permitted on any grade ~~or quality~~ of hot- or cold-rolled steel sheet. The coated sheet is available as ~~commercial quality, drawing quality, drawing quality special killed, structural (physical) quality, Commercial Steel (CS), Drawing Steel (DS), Deep Drawing Steel (DDS), Extra-Deep Drawing Steel (EDDS), Structural Steel (SS), or High-Strength Low-Alloy Steel (HSLAS), or High-Strength Low-Alloy Steel with Improved Formability (HSLAS-F).~~

1.4 The values stated in SI units are to be regarded as the standard.

2. Referenced Documents

2.1 *ASTM Standards:*

¹ This specification is under the jurisdiction of ASTM Committee A-5 A05 on Metallic Coated Iron and Steel Products and is the direct responsibility of Subcommittee A05.11 on Sheet Specifications.

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