



Standard Practice for the Use of Color Codes for Zinc Casting Alloy Ingot¹

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1. Scope

- 1.1 This standard is published with the following objectives:
- 1.2 To establish standard color codes for the Zinc Die Casting and Foundry industry, and
- 1.3 To standardize the use and application of these color codes.

1.4 *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 become familiar with all hazards including those identified in the appropriate Material Safety Data Sheet (MSDS) for this product/material as provided by the manufacturer, to establish appropriate safety and health practices, and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 The following documents of the issue in effect on date of order acceptance form a part of this specification to the extent referenced herein:

2.2 *ASTM Standards:*²

- B 240** Specification for Zinc and Zinc-Aluminum (ZA) Alloys in Ingot Form for Foundry and Die Castings
- B 275** Practice for Codification of Certain Nonferrous Metals and Alloys, Cast and Wrought
- B 327** Specification for Master Alloys Used in Making Zinc Die Casting Alloys
- B 792** Specification for Zinc Alloys in Ingot Form for Slush Casting
- B 793** Specification for Zinc Casting Alloy Ingot for Sheet Metal Forming Dies and Plastic Injection Molds
- B 892** Specification for ACuZinc5 (Zinc-Copper-Aluminum) Alloy in Ingot Form for Die Castings
- B 899** Terminology Relating to Non-ferrous Metals and Alloys

E 527 Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

2.3 *ISO Standard:*

ISO 301 Zinc alloy ingots intended for casting, 1981-05-15³

2.4 *CEN Standard:*

EN 1774 Zinc and zinc alloys—Alloys for foundry purposes—Ingot and liquid, September 1997⁴

3. Terminology

3.1 Terms shall be defined in accordance with Terminology **B 899**.

4. Significance and Use

4.1 The purpose of these color codes is to allow for quick identification of ingot bundles or jumbo ingots of zinc casting alloys. Other than jumbo ingots, this standard is not intended to imply that each ingot will be color-coded but only that each ingot bundle be color coded.

4.2 Each ingot bundle or jumbo ingot shall be identified with the appropriate color code listed in **Table 1**.

4.3 The color will be applied as a stripe, or stripes, on two adjacent sides of the ingot bundle or jumbo ingot. The color stripes will be applied to include the ingot bundle foot.

4.4 When using multiple stripes, the colored stripes will be applied from left to right as indicated in **Table 1**.

4.5 In the absence of a written agreement to the contrary between the supplier and end user, the North American color code will be the standard for all North American transactions; for all other transactions the International Color Code will be used.

5. Keywords

5.1 ACuZinc; ACuZinc5; color; color code; Kirksite; Kirksite A; Kirksite B; non-ferrous metals; Zamak; Zamak 2; Zamak 3; Zamak 5; Zamak 7; zinc; zinc alloys; zinc-aluminum alloys; zinc-copper-aluminum alloys

¹ This practice is under the jurisdiction of ASTM Committee B02 on Nonferrous Metals and Alloys and Alloys and is the direct responsibility of Subcommittee B02.04 on Zinc and Cadmium.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ "English Version" available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁴ "English Version" available from Global Engineering Documents, 15 Inverness Way, East Englewood, CO 80112-5704, <http://global.ihs.com>.



TABLE 1 Color Codes

Common	UNS ^A	ASTM Standard	ASTM Alloy	Traditional	Color Code	
					North America ^B	International
Alloy 3	Z33521	B 240	AG 40A ^C	Zamak 3	None	White/Yellow ^D
Alloy 7	Z33522	B 240	AG 40B ^C	Zamak 7	Brown	White/Brown ^E
Alloy 5	Z35530	B 240	AC 41A ^C	Zamak 5	Black	White/Black ^D
Alloy 2	Z35540	B 240	AC 43A ^C	Zamak 2	Green	White/Green ^D
ZA-8	Z35635	B 240	ZA-8	ZA-8	Blue	White/Blue ^D
ZA-12	Z35630	B 240	ZA-12	ZA-12	Orange	White/Orange ^D
ZA-27	Z35840	B 240	ZA-27	ZA-27	Purple	White/Purple ^D
ACuZinc 5	Z46540	B 892	Zn-Cu5-Al3	ACuZinc5 ^F	Red	White/Red ^E
V12	Z33730	B 327	V12	V12	Pink	White/Pink ^E
Slush Casting Alloy A	Z34510	B 792	Slush Casting Alloy A	Slush Casting Alloy A	Black/Red	White/Black/Red ^E
Slush Casting Alloy B	Z30500	B 792	Slush Casting Alloy B	Slush Casting Alloy B	Black/Orange	White/Black/Orange ^E
Zinc Casting Alloy for Dies and Molds - A	Z35543	B 793	Die & Mold Alloy A	Kirksite A	Green/Red	White/Green/Red ^E
Zinc Casting Alloy for Dies and Molds - B	Z35542	B 793	Die & Mold Alloy B	Kirksite B	Green/Black	White/Green/Black ^E

^A UNS assignments were established in accordance with Practice E 527. The last digit of a UNS number differentiates between alloys of similar composition.

^B The North American system is design to be a simplified version of the International system by eliminating the leading white stripe and in the case of Alloy 3 eliminating all stripes.

^C ASTM alloy designations established in accordance with Practice B 275.

^D The color codes for these alloys are adapted from European standard (CEN) specification EN 1774. No color coding currently exists in International standard ISO 301.

^E These alloys are not currently included in European standard EN 1774 nor International standard ISO 301 and no color codes have previously been assigned.

^F ACuZinc and ACuZinc5 are registered names of the General Motors Corporation.

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