

# Material: UNS Z33531

## Standard Specification for Zinc Die Casting Alloy 5 (AC41A) Ingot

**Group:** Non-Ferrous Zinc Alloy

**Sub Group:** UNS for Zinc Die Casting Alloy 5 (AC41A) Ingot

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade

**Belongs to the Industry:** Ingot and Casting

| Chemical Composition |      |               | Heat Treatment                                                                                                                                                                                          |  |
|----------------------|------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Aluminium            | Al % | 3.500 - 4.300 | As-Cast or Aging                                                                                                                                                                                        |  |
| Cadmium              | Cd % | 0.004 max.    |                                                                                                                                                                                                         |  |
| Copper               | Cu % | 0.750 - 1.250 |                                                                                                                                                                                                         |  |
| Iron                 | Fe % | 0.100 max.    |                                                                                                                                                                                                         |  |
| Magnesium            | Mg % | 0.030 - 0.080 |                                                                                                                                                                                                         |  |
| Lead                 | Pb % | 0.005 max.    |                                                                                                                                                                                                         |  |
| Tin                  | Sn % | 0.003 max.    |                                                                                                                                                                                                         |  |
| Zinc                 | Zn % | Balance       |                                                                                                                                                                                                         |  |
| -                    | -    | -             | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 330 min.<br>Yield Strength in Mpa 250 min.<br>Elongation in % 5 min.<br>Reduction of Area in % -<br>Hardness in HB 92 min.<br>Impact in Joule - |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |
| -                    | -    | -             |                                                                                                                                                                                                         |  |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| Zamak 5               | ANSI/AA  | USA           | Casting                      |
| ZP5                   | ISO      | International | Casting                      |
| B86 Alloy 5           | ASTM     | USA           | Casting                      |
| B86 Zamak 5           | ASTM     | USA           | Casting                      |
| B86 AC41A             | ASTM     | USA           | Casting                      |
| B240 AC41A            | ASTM     | USA           | Ingot and Casting            |
| B240 Zamak 5          | ASTM     | USA           | Ingot and Casting            |

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