

# Material - ASTM B86 Alloy 3

## Standard Specification for Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings

#### **Group - Non-Ferrous Zinc Alloy**

Sub Group - ASTM B86 Zinc and Zinc-Aluminum (ZA) Alloy Foundry and Die Castings

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the Industry - Casting

| Chemical Composition |      |               | Heat Treatment                |          |
|----------------------|------|---------------|-------------------------------|----------|
| Aluminium            | Al % | 3.700 - 4.300 |                               |          |
| Cadmium              | Cd % | 0.004 max.    |                               |          |
| Chromium             | Cr % | 0.020 max.    |                               |          |
| Copper               | Cu % | 0.100 max.    | As-Cast or Aging              |          |
| Iron                 | Fe % | 0.050 max.    |                               |          |
| Magnesium            | Mg % | 0.020 - 0.060 |                               |          |
| Manganese            | Mn % | 0.060 max.    |                               |          |
| Nickel               | Ni % | 0.020 max.    |                               |          |
| Lead                 | Pb % | 0.005 max.    | Mechanical Properties         |          |
| Silicon              | Si % | 0.035 max.    | Tensile Strength in Mpa       | 283 min. |
| Tin                  | Sn % | 0.002 max.    | Yield Strength in Mpa         | 221 min. |
| Titanium             | Ti % | 0.001 max.    | Elongation in %               | 10 min.  |
| Zinc                 | Zn % | Balance       | Reduction of Area in %        | -        |
| -                    | -    | -             | Hardness in HB                | 82 min.  |
| -                    | -    | -             | Impac <mark>t in Joule</mark> | -        |

| Cross Reference Table |          |               |                              |  |
|-----------------------|----------|---------------|------------------------------|--|
| Material              | Standard | Country       | Grade Belong to the Industry |  |
| Zamak 3               | ANSI/AA  | USA           | Casting                      |  |
| ZP3                   | ISO      | International | Casting                      |  |
| Z33521                | UNS      | USA           | Ingot and Casting            |  |
| B86 Zamak 3           | ASTM     | USA           | Casting                      |  |
| B86 AG40A             | ASTM     | USA           | Casting                      |  |
| ZnAl4                 | UNI      | Italy         | Ingot and Casting            |  |
| B240 Zamak 3          | ASTM     | USA           | Casting                      |  |

# Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.

### **ONE STOP SOLUTION FOR METAL PARTS**