



## Material - UNS M10413

## Standard Specification for Magnesium Alloy, AS41B, Ingot

**Group - Non-Ferrous Magnesium Alloy** 

Sub Group - UNS Magnesium Alloy, AS41B, 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 % | 3.700 - 4.800 |                               |           |
| Copper               | Cu % | 0.015 max.    |                               |           |
| Iron                 | Fe % | 0.0035 max.   | As-Cast                       |           |
| Manganese            | Mn % | 0.350 - 0.600 |                               |           |
| Nickel               | Ni % | 0.001 max.    |                               |           |
| Other                | Ot%  | 0.010 max.    |                               |           |
| Silicon              | Si % | 0.600 - 1.400 |                               |           |
| Zinc                 | Zn % | 0.100 max.    |                               | _         |
| Magnesium            | Mg % | Balance       | Mechanical Properties         |           |
| -                    | _    |               | Tensile Strength in Mpa       | 170 - 230 |
| -                    | -    | -             | Yield Strength in Mpa         | 110 - 130 |
| -                    | -    | -             | Elongation in %               | 4 - 14    |
| -                    | -    | -             | Reduction of Area in %        | -         |
| -                    | -    | -             | Hardness in HB                | 50 - 70   |
| -                    | -    | -             | Impac <mark>t in Joule</mark> | -         |

| Cross Reference Table |          |                                      |                   |  |
|-----------------------|----------|--------------------------------------|-------------------|--|
| Material              | Standard | Country Grade Belong to the Industry |                   |  |
| AS41B                 | ANSI/AA  | USA                                  | Casting           |  |
| B93 AS41B             | ASTM     | USA                                  | Ingot and Casting |  |
| B951 M10413           | ASTM     | USA                                  | Casting           |  |
| MD-AS41B              | JIS      | Japan                                | Casting           |  |
| MD3B                  | JIS      | Japan                                | Casting           |  |
| MD3B                  | KS       | Korea                                | Casting           |  |
| MC21310               | KS       | Korea                                | Ingot and 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

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