



**GRAVITY CAST PVT. LTD.**  
**GRAVITY GROUP OF COMPANIES**

## Material - ANSI/AA A380

**Standard Specification for Aluminium Alloy for General Engineering and Light-Weight Structural Purpose**

**Group - Non-Ferrous Aluminium Alloy**

**Sub Group - ANSI/AA Aluminium Alloy for General Engineering and Light-Weight Structural Purpose**

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

**Grade Belongs to the Industry - Casting**

| Chemical Composition |      |               | Heat Treatment   |  |
|----------------------|------|---------------|--|--|
| Silicon              | Si % | 7.500 - 9.500 | As-Cast or Aging   |  |
| Iron                 | Fe % | 1.300 max.    |  |  |
| Copper               | Cu % | 3.000 - 4.000 |  |  |
| Magnesium            | Mg % | 0.300 max.    |  |  |
| Manganese            | Mn % | 0.500 max.    |  |  |
| Nickel               | Ni % | 0.500 max.    |  |  |
| Zinc                 | Zn % | 3.000 max.    |  |  |
| Tin                  | Sn % | 0.350 max.    |  |  |
| Other                | Ot%  | 0.500 max.    |  |  |
| Aluminium            | Al % | Balance       |  |  |
| -                    | -    | -             | <b>Mechanical Properties</b><br>Tensile Strength in Mpa      324 min.<br>Yield Strength in Mpa      159 min.<br>Elongation in %      3.5 min.<br>Reduction of Area in %      -<br>Hardness in BHN      80 min.<br>Impact in Joule      - |  |
| -                    | -    | -             |  |  |
| -                    | -    | -             |  |  |
| -                    | -    | -             |  |  |
| -                    | -    | -             |  |  |
| -                    | -    | -             |  |  |
| -                    | -    | -             |  |  |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| A03800                | UNS      | USA     | Casting                      |
| B 275 380.0           | ASTM     | USA     | Casting                      |
| A 275 SC84B           | ASTM     | USA     | Casting                      |
| B 85 380.0            | ASTM     | USA     | Casting                      |
| B 85 SC84B            | ASTM     | USA     | Casting                      |
| A03800                | SAE      | USA     | Casting                      |
| 380.0                 | NBR      | Brazil  | 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](mailto: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.

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