

#### Aluminium Alloys



#### Get to Know Gravita

Gravita, established in 1992, is one of India's largest producer of non-ferrous metals and leading technology solution provider for recycling of non-ferrous metals. In the year 2000, we started operating in overseas locations and by the year 2010; our customer presence had expanded to over 32 countries in Europian, American, Asian and African continents. Gravita is a public listed company registered under Indian companies act and listed at National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) Ltd.

Gravita's products and services offer distinctive solutions to the customers worldwide. We are catering to a widespread customer base and over the three decades, we have grown significantly and are recognized globally for our exceptional customer service and technical expertise. Our customers have counted on our products and services to achieve higher level of efficiencies and productivity.

We deploy the latest technologies to recycle and produce

Aluminium and Lead alloys with stringent quality controls at each of our production facilities across the globe.

Our production complies with international standards. Globally, Gravita is well recognized for its quality and commitment to customers.

As far as production is concerned, one of our key goals is the environmentally responsible recycling of non-ferrous metals. Our organization is constantly generating sustainable, technology-driven jobs for Indian & overseas workforce.

Gravita is engaged in various CSR activities under which it engages with neighbouring villages to generate green jobs. Our employees reap the benefits of regular health check-up and religiously follow the international standards for industrial health and safety. Members of our organization share a dedication to social and environmental responsibility.

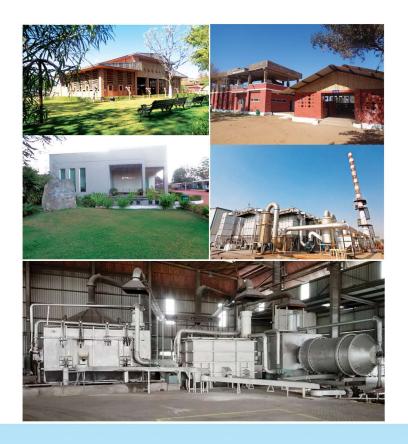


#### Sustainable Operations

We have technically advanced manufacturing units with modern eco-friendly technology. Our manufacturing units are well equipped with latest high end machinery, Computerized Design Unit, Laboratory, Conference Hall for arranging business meet – cum – technology based meet to promote and/or training for eco friendly production.

We have highly experienced and diligent team of experts who assists us in offering high quality products. Our Research and Development team is regularly updated on the latest developments happening globally in the field of non ferrous metal production.

Occupational health and safety is our top priority and we organize regular training and awareness programs to ensure that the working environment provided at Gravita meets international safety standards. Our manufacturing facilities have modern worker colonies along with hygienic meal rooms and recreational area.





#### **Products**

We take utmost care during refining & alloying process. Each batch is checked at regular interval during the production process. The foundry alloys are casted through high grade ceremic filter to ensure that it meets all the casting parameters of die casters. Our aluminium alloys are produced to meet individual customer specifications & our production in accordance with JIS & BS standards.

#### Tailored Solutions for Unique Specifications



Aluminium Alloy Ingots



Aluminium Cubes



Aluminium Notch Bar



Aluminium Shots

### 66 We guarantee in cost saving in die casting with superior properties of Gravita Aluminium Alloys

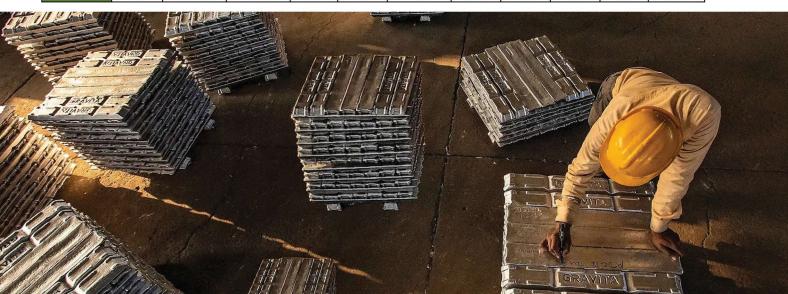
Eco Friendly Alloys

Aluminium Alloys
JIS – Chemical Composition (% by weight)

| Alloy         | Cu         | Si           | Mg           | Zn       | Fe       | Mn           | Cr       | Ni       | Sn       | Pb        | Ti           | Al      |
|---------------|------------|--------------|--------------|----------|----------|--------------|----------|----------|----------|-----------|--------------|---------|
| ADC1          | 1.0 max    | 11.0 to 13.0 | 0.3 max      | 0.5 max  | 1.3 max  | 0.3 max      | 1        | 0.5 max  | 0.1 max  | 0.20 max  | 0.30 max     | Balance |
| ADC3          | 0.6 max    | 9.0 to 11.0  | 0.4 to 0.6   | 0.5 max  | 1.3 max  | 0.3 max      | Ţ        | 0.5 max  | 0.1 max  | 0.15 max  | 0.30 max     | Balance |
| ADC5          | 0.2 max    | 0.3 max      | 4.0 to 8.5   | 0.1 max  | 1.8 max  | 0.3 max      | I        | 0.1 max  | 0.1 max  | 0.1 max   | 0.20 max     | Balance |
| ADC6          | 0.1 max    | 1.0 max      | 2.5 to 4.0   | 0.4 max  | 0.8 max  | 0.4 to 0.6   | -        | 0.1 max  | 0.1 max  | 0.1 max   | 0.20 max     | Balance |
| ADC10         | 2.0 to 4.0 | 7.5 to 9.5   | 0.3 max      | 1.0 max  | 1.3 max  | 0.5 max      | -        | 0.5 max  | 0.2 max  | 0.20 max  | 0.30 max     | Balance |
| ADC10Z        | 2.0 to 4.0 | 7.5 to 9.5   | 0.3 max      | 3.0 max  | 1.3 max  | 0.5 max      | -        | 0.5 max  | 0.2 max  | 0.20 max  | 0.30 max     | Balance |
| ADC12         | 1.5 to 3.5 | 9.6 to 12.0  | 0.3 max      | 1.0 max  | 1.3 max  | 0.5 max      | _        | 0.5 max  | 0.2 max  | 0.20 max  | 0.30 max     | Balance |
| ADC12Z        | 1.5 to 3.5 | 9.6 to 12.0  | 0.3 max      | 3.0 max  | 1.3 max  | 0.5 max      | -        | 0.5 max  | 0.2 max  | 0.20 max  | 0.30 max     | Balance |
| ADC14         | 4.0 to 5.0 | 16.0 to 18.0 | 0.45 to 0.65 | 1.5 max  | 1.3 max  | 0.5 max      | -        | 0.3 max  | 0.3 max  | 0.20 max  | 0.30 max     | Balance |
| AC4B          | 2.0 to 4.0 | 7.0 to 10.0  | 0.5 max      | 1.0 max  | 0.8 max  | 0.5 max      | 0.20 max | 0.35 max | 0.10 max | 0.20 max  | 0.20 max     | Balance |
| AC2B          | 2.0 to 4.0 | 5.0 to 7.0   | 0.5 max      | 1.0 max  | 0.8 max  | 0.5 max      | 0.20 max | 0.35 max | 0.10 max | 0.20 max  | 0.20 max     | Balance |
| AlSi9Mg       | 0.03 max   | 9.0 to 10.0  | 0.30 to 0.45 | 0.07 max | 0.15 max | 0.10 max     | _        | -        |          | _         | 0.15 max     | Balance |
| AlSi10Mg      | 0.08 max   | 9.0 to 11.0  | 0.25 to 0.45 | 0.10 max | 0.45 max | 0.45 max     | -        | 0.05 max | 0.05 max | 0.05 max  | 0.15 max     | Balance |
| AlSi9Cu1Mg    | 0.8 to 1.3 | 8.3 to 9.7   | 0.30 to 0.65 | 0.80 max | 0.7 max  | 0.15 to 0.55 | -        | 0.20 max | 0.10 max | 0.10 max  | 0.10 to 0.18 | Balance |
| AlSi9Cu3(Fe)  | 2.0 to 4.0 | 8.0 to 11.0  | 0.05 to 0.55 | 3.0 max  | 1.3 max  | 0.55 max     | 0.15 max | 0.55 max | 0.25 max | 0.35 max  | 0.25 max     | Balance |
| AlSi12Cu1(Fe) | 0.7 to 1.2 | 10.5 to 13.5 | 0.35 max     | 0.55 max | 1.3 max  | 0.55 max     | 0.10 max | 0.30 max | 0.10 max | 0.20 max  | 0.20 max     | Balance |
| A356          | 0.20 Max   | 6.5-7.5      | 0.25-0.45    | 0.10 Max | 0.20 Max | 0.10 Max     | -        | -        | :=       | 9-        | 0.20 Max     | Balance |
| A380          | 3.0-4.0    | 7.5-9.5      | 0.10 Max     | 1.0 Max  | 1.30 Max | 0.50 Max     | -        | 0.50 Max | 0.35 Max | 0.10 Max  | -            | Balance |
| HS1S          | 2.5-3.5    | 6.5-7.5      | 0.25-0.40    | 0.50 Max | 0.50 Max | 0.25 Max     | 0.10 Max | 0.15 Max | 0.10 Max | 0.20 Max  | 0.20 Max     | Balance |
| AS-9          | 0.8-1.3    | 9.0-10.0     | 0.30-0.50    | 0.10 Max | 0.25 Max | 0.10 Max     | -        | 0.05 Max | -        | 0.10 Max  | 0.10 Max     | Balance |
| Ingot - 96%   | 0.25 Max   | 0.95 Max     | 1.00 Max     | 0.15 Max | 1.00 Max | 0.90 Max     | 0.05 Max | 0.02 Max |          | 0.05 Max  | 2            | Balance |
| Ingot - 98.5% | 0.25 Max   | 0.50 Max     | 0.20 Max     | 0.20 Max | 0.90 Max | 0.20 Max     | 0.10 Max | 0.10 Max | -        | 0.050 Max | ,            | Balance |

#### **BS** – Chemical Composition (% by weight)

| Alloy | Cu        | Mg         | Si          | Fe        | Mn        | Ni        | Zn        | Pb   | Sn   | Ti         | Al      |
|-------|-----------|------------|-------------|-----------|-----------|-----------|-----------|------|------|------------|---------|
| LM0   | 0.03      | 0.03       | 0.3         | 0.4       | 0.03      | 0.03      | 0.07      | 0.03 | 0.03 | -          | Balance |
| LM2   | 0.7-2.5   | 0.3        | 9.0-11.5    | 1         | 0.5       | 0.5       | 2         | 0.3  | 0.2  | 0.2        | Balance |
| LM4   | 2.0-4.0   | 0.2        | 4.0-6.0     | 0.8       | 0.2-0.6   | 0.3       | 0.5       | 0.1  | 0.1  | 0.2        | Balance |
| LM5   | 0.1       | 3.0-6.0    | 0.3         | 0.6       | 0.3-0.7   | 0.1       | 0.1       | 0.05 | 0.05 | 0.2        | Balance |
| LM6   | 0.1       | 0.1        | 10.0-13.0   | 0.6       | 0.5       | 0.1       | 0.1       | 0.1  | 0.05 | 0.2        | Balance |
| LM9   | 0.2       | 0.2-0.6    | 10.0-13.0   | 0.6       | 0.3-0.7   | 0.1       | 0.1       | 0.1  | 0.05 | 0.2        | Balance |
| LM12  | 9.0-11.0  | 0.2-0.4    | 2.5         | 1         | 0.6       | 0.5       | 0.8       | 0.1  | 0.1  | 0.2        | Balance |
| LM13  | 0.7-1.5   | 0.8-1.5    | 10.0-13.0   | 1         | 0.5       | 1.5       | 0.5       | 0.1  | 0.1  | 0.2        | Balance |
| LM14  | 3.5 – 4.5 | 1.2 - 1.7  | 0.6         | 0.6       | 0.6       | 1.8 - 2.3 | 0.1       | 0.05 | 0.05 | 0.2        | Balance |
| LM15  | 0.3 - 3.0 | 0.5 - 1.7  | 0.6 - 2.0   | 0.8 – 1.4 | 0.1       | 0.5 - 2.0 | 0.1       | 0.05 | 0.05 | 0.05 - 0.3 | Balance |
| LM16  | 1.0-1.5   | 0.4-0.6    | 4.5-5.5     | 0.6       | 0.5       | 0.25      | 0.1       | 0.1  | 0.05 | 0.2        | Balance |
| LM20  | 0.4       | 0.2        | 10.0 - 13.0 | 1         | 0.5       | 0.1       | 0.2       | 0.1  | 0.1  | 0.2        | Balance |
| LM21  | 3.0 - 5.0 | 0.1 - 0.3  | 5.0 – 7.0   | 1         | 0.2 - 0.6 | 0.3       | 2         | 0.2  | 0.1  | 0.2        | Balance |
| LM22  | 2.8 – 3.8 | 0.05       | 4.0 - 6.0   | 0.6       | 0.2 - 0.6 | 0.15      | 0.15      | 0.1  | 0.05 | 0.2        | Balance |
| LM24  | 3.0 - 4.0 | 0.3        | 7.5 – 9.5   | 1.3       | 0.5       | 0.5       | 3         | 0.3  | 0.2  | 0.2        | Balance |
| LM25  | 0.2       | 0.2 - 0.6  | 6.5 – 7.5   | 0.5       | 0.3       | 0.1       | 0.1       | 0.1  | 0.05 | 0.2        | Balance |
| LM26  | 2.0 - 4.0 | 0.5 - 1.5  | 8.5 – 10.5  | 1.2       | 0.5       | 1         | 1         | 0.2  | 0.1  | 0.2        | Balance |
| LM27  | 1.5 – 2.5 | 0.35       | 6.0 - 8.0   | 0.8       | 0.2 - 0.6 | 0.3       | 1         | 0.2  | 0.1  | 0.2        | Balance |
| LM28  | 1.3 – 1.8 | 0.8 - 1.5  | 17 – 20     | 0.7       | 0.6       | 0.8 - 1.5 | 0.2       | 0.1  | 0.1  | 0.2        | Balance |
| LM29  | 0.8 - 1.3 | 0.8 - 1.3  | 22 – 25     | 0.7       | 0.6       | 0.8 - 1.3 | 0.2       | 0.1  | 0.1  | 0.2        | Balance |
| LM30  | 4.0 - 5.0 | 0.4 - 0.7  | 16 – 18     | 1.1       | 0.3       | 0.1       | 0.2       | 0.1  | 0.1  | 0.2        | Balance |
| LM31  | 0.1       | 0.5 - 0.75 | 0.25        | 0.5       | 0.1       | 0.1       | 4.8 – 5.7 | 0.05 | 0.05 | 0.25       | Balance |



# Increasing Contract Green Footprints

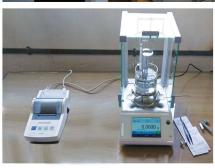


## Process Monitoring & Sustainable Recycling

We ensure each parameter of inward raw material, outward finished goods, waste & by products are checked & monitored to ensure satisfaction of all stakeholders for a sustainable growth.













#### Industries We Serve

Gravita is engaged in manufacturing a variety of high quality aluminium alloys available in various chemical compositions. These different alloys can be used for sand, gravity and die casting, which can be utilized in electrical industry, light weight applications, automobiles and other applications.

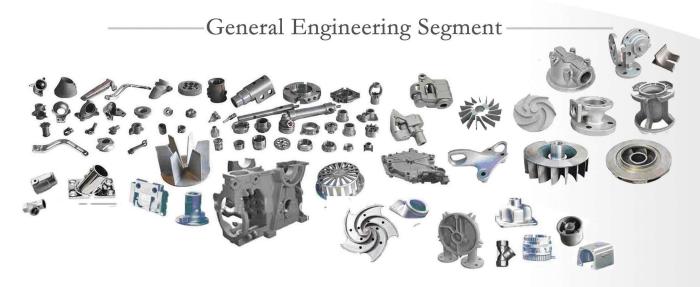
We cater to a wide range of aluminium foundry alloys required by automobile parts & electrical parts die casters.

#### Automobile Segment



#### Electrical & Electronics Segment





#### **Excellence Rewarded**

Winning the trust of customers and then being appreciated for the same is an achievement in itself. Gravita has been awarded with numerous prestigious honors for its unfaltering commitment to quality and service over the years. Some of these business performance awards which has put Gravita firmly ahead of its competitors include:

- Northern Region Export Excellence Award 2023
- Best Employer Award 2023
- Emerging India Green SME Award
- COSIA Entrepreneurship Appreciation Award 2011
- MSME National Award 2010
- Udhyog Bharti Award
- India SME 100 Award
- Best Business Partner Award
- Star Export House
- Niryat Shree Award from President of India
- Fastest Growing SME & Organization Award
- INC 500 Certificate of Excellence
- RCCI Business Excellence Award
- Business Today Green SME Award
- Indian Achievers Award
- Business Leadership Award
- CE Certification
- Rashtriya Vikas Ratan Award
- Bureau of Indian Standards (BIS)











### Our State-of-The-Art Aluminium **Alloys Manufacturing Plants**

Strategically located in Asia and Africa, our aluminium alloy manufacturing plants with an annual capacity of over 45,000 MT are well-positioned to serve the ever-growing demands of the global aluminium die-casting components manufacturing industry. Our global procurement network ensures a consistent supply of high-quality aluminium scrap, a crucial factor in maintaining top-tier alloy production.



India, Asia



Mozambique, Africa



Tanzania, Africa



Togo, Africa



Senegal, Africa



Ghana, Africa

#### **Global Network**



- Regional Offices
- Manufacturing Facilities

#### **Business Verticals**

Lead • Aluminium • Plastic • Rubber • Turnkey Solutions
 • EPR Consultancy

#### Deep Routed PROCUREMENT NETWORK

31

Own Yards

1700+

Touch Points

2,50,000+MT

Scrap Collection

Diversified CUSTOMER NETWORK

32+

Countries

350+

1,69,000+MT

Customers

Recycled Product Delivery

#### We Recycle to Save Environment



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