

# Indian Aluminium Powder Market Report by End-Use (Pyrotechnics Industry), Technology (Air-Atomization), Raw Material (Aluminum Ingots, Aluminum Scrap), Furnace Type (Oil-Fired Furnace, Gas-Fired Furnace, Electric Furnace), and Region 2024-2032

<https://marketpublishers.com/r/IC165C651ED2EN.html>

Date: April 2024

Pages: 118

Price: US\$ 2,699.00 (Single User License)

ID: IC165C651ED2EN

## Abstracts

The Indian aluminium powder market size reached 43,977.2 Tons in 2023. Looking forward, IMARC Group expects the market to reach 71,142.5 Tons by 2032, exhibiting a growth rate (CAGR) of 5.3% during 2024-2032.

Aluminium is a lightweight, ductile, non-magnetic, malleable metallic element with a soft finish. Over the years, aluminium has been available in different forms which include aluminium sulphate, alum, aluminium powder, etc. Amongst these, aluminium powder is prepared by exposing molten aluminium metal to a compressed gas jet. After this, the combination is converted into fine droplets which are later solidified and collected. The gathered powder is subsequently graded according to the size of the particles. This powder is combustible in nature, light in weight, odourless, highly flammable and silvery-white to grey in colour. The aluminium powder market in India has been witnessing a positive growth in recent years led by increasing usage of aluminium powder in technological industries as well as its easy availability and affordability.

In India, aluminium powder is being used for various purposes across numerous industries which include metallurgy, chemicals, paints & pigments, explosives, construction and others. This is one of the major factors which has been supporting the growth of the aluminium powder in India. Additionally, there has been an increase in the use of aluminium powder for the production of coating paints which has further

propelled its demand across the automotive industry. Apart from this, aluminium powder is corrosion-resistant and can be easily recycled owing to which it becomes a highly durable product with a longer lifespan as compared to other metals. As aluminium powder is effective in reflecting light, it is also being increasingly used in the form of pigments. These are some of the other factors which have been positively influencing the growth of the Indian aluminium powder market.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the Indian aluminium powder market report, along with forecasts at the country and regional level from 2024-2032. Our report has categorized the market based on end-use, technology, raw material and furnace type.

#### Breakup by End-Use:

On the basis of end-use, the pyrotechnics industry represents the biggest end use segment.

#### Breakup by Technology:

On the basis of technology, air-atomization represents the leading technology to produce aluminium powder.

#### Breakup by Raw Material:

Aluminum Ingots  
Aluminum Scrap

On the basis of raw material, aluminum ingots represent the major type of raw material used to manufacture aluminium powder.

#### Breakup by Furnace Type:

Oil-Fired Furnace  
Gas-Fired Furnace  
Electric Furnace

On the basis of furnace type, oil-fired furnace represented the major type.

## Breakup by Region:

North India  
South India  
East India  
West India

Based on region, the market has been segmented into North India, South India, West India and East India. Currently, South India dominates the market, holding the majority of the market share.

## Competitive Landscape:

The competitive landscape of the market has also been examined with some of the key players being MEPCO, MMPIL, Arasan, Sri Kaliswari, SunArk, etc.

This report provides a deep insight into the Indian aluminium powder covering all its essential aspects. This ranges from macro overview of the market to micro details of the industry performance, recent trends, key market drivers and challenges, SWOT analysis, Porter's five forces analysis, value chain analysis, etc. The report also provides a comprehensive analysis for setting up an aluminium powder manufacturing plant. The study analyses the processing and processing requirements, project cost, project funding, project economics, expected returns on investment, profit margins, etc. This report is a must-read for entrepreneurs, investors, researchers, consultants, business strategists, and all those who have any kind of stake or are planning to foray into the aluminium powder in any manner.

## Key Questions Answered in This Report

1. What was the size of the Indian aluminium powder market in 2023?
2. What is the expected growth rate of the Indian aluminium powder market during 2024-2032?
3. What are the key factors driving the Indian aluminium powder market?
4. What has been the impact of COVID-19 on the Indian aluminium powder market?
5. What is the breakup of the Indian aluminium powder market based on the end use?
6. What is the breakup of the Indian aluminium powder market based on the technology?
7. What is the breakup of the Indian aluminium powder market based on the raw material?
8. What is the breakup of the Indian aluminium powder market based on the furnace

type?

9. What are the key regions in the Indian aluminium powder market?

10. Who are the key players/companies in the Indian aluminium powder market?

## Contents

### 1 PREFACE

### 2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### 3 EXECUTIVE SUMMARY

### 4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

### 5 INDIA ALUMINIUM POWDER MARKET

- 5.1 Market Overview
- 5.2 Market Performance
  - 5.2.1 Volume Trends
  - 5.2.2 Value Trends
- 5.3 Impact of COVID-19
- 5.4 Price Trends
  - 5.4.1 Key Price Indicators
  - 5.4.2 Current and Historical Price Trends
  - 5.4.3 Price Forecast
- 5.5 Market Forecast
- 5.6 Import and Export Data
  - 5.6.1 Imports by Major Countries
  - 5.6.2 Exports by Major Countries
- 5.7 SWOT Analysis

- 5.7.1 Overview
- 5.7.2 Strengths
- 5.7.3 Weaknesses
- 5.7.4 Opportunities
- 5.7.5 Threats
- 5.8 Value Chain Analysis
- 5.9 Porter's Five Forces Analysis
  - 5.9.1 Overview
  - 5.9.2 Bargaining Power of Buyers
  - 5.9.3 Bargaining Power of Suppliers
  - 5.9.4 Degree of Rivalry
  - 5.9.5 Threat of New Entrants
  - 5.9.6 Threat of Substitutes

## **6 MARKET PERFORMANCE BY REGION**

- 6.1 North India
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 South India
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast
- 6.3 East India
  - 6.3.1 Market Trends
  - 6.3.2 Market Forecast
- 6.4 West India
  - 6.4.1 Market Trends
  - 6.4.2 Market Forecast

## **7 MARKET PERFORMANCE BY END-USE**

## **8 MARKET PERFORMANCE BY TECHNOLOGY**

## **9 MARKET PERFORMANCE BY RAW MATERIAL**

- 9.1 Aluminum Ingots
  - 9.1.1 Market Trends
  - 9.1.2 Market Forecast
- 9.2 Aluminum Scrap

- 9.2.1 Market Trends
- 9.2.2 Market Forecast

## **10 MARKET PERFORMANCE BY FURNACE TYPE**

- 10.1 Oil-Fired Furnace
  - 10.1.1 Market Trends
  - 10.1.2 Market Forecast
- 10.2 Gas-Fired Furnace
  - 10.2.1 Market Trends
  - 10.2.2 Market Forecast
- 10.3 Electric Furnace
  - 10.3.1 Market Trends
  - 10.3.2 Market Forecast

## **11 COMPETITIVE LANDSCAPE**

- 11.1 Market Structure
- 11.2 Market Breakup by Key Players

## **12 INDIA: ALUMINIUM POWDER INDUSTRY ANALYSIS**

- 12.1 Latest Technologies for Aluminium Powder Manufacturing
  - 12.1.1 Atomization Process
  - 12.1.2 Gas Atomisation
  - 12.1.3 Air Atomisation
  - 12.1.4 Water Atomisation
  - 12.1.5 Plasma Atomisation
  - 12.1.6 Melt Spinning Process
- 12.2 Latest Technologies for Metal Processing (Melting Furnaces)
  - 12.2.1 Oil Fired Furnace
  - 12.2.2 Gas Fired Furnace
  - 12.2.3 Electric Arc Furnace
  - 12.2.4 Induction Furnace
    - 12.2.4.1 Coreless Induction Furnace
    - 12.2.4.2 Channel Induction Furnace
  - 12.2.5 Cost Comparison of Furnaces
- 12.3 Testing and Laboratory Equipments Required
- 12.4 Latest Technology for Aluminum Paste and Aluminum Flake Powder

## Manufacturing

- 12.5 Key Market Opportunities in the Aluminium Powder Industry
- 12.6 Supply Requirements for Defence Ministry
- 12.7 Regulatory Safety Compliances for an Aluminium Powder Manufacturing Plant
  - 12.7.1 Characterization of Hazard Potential
  - 12.7.2 Storage of Aluminium Powder
  - 12.7.3 Handling of Aluminium Powder
  - 12.7.4 Protective Environment
    - 12.7.4.1 Personal Protective Environment
    - 12.7.4.2 Protective Equipment for Buildings
  - 12.7.5 Effects of Introducing an Inerting System
  - 12.7.6 Measures to be Taken in Case of Spillage and Fire-Fighting
    - 12.7.6.1 During Spillage
    - 12.7.6.2 During Fire-Fighting
  - 12.7.7 First-Aid Measures to be Adopted
- 12.8 BIS Standards and Product Specifications for Aluminium Powder
- 12.9 Vendors and Turnkey Project Companies
- 12.10 Independent Consultants in India
- 12.11 Raw Material Supplier Details
- 12.12 Key Success and Risk Factors in the Aluminium Powder Industry

## **13 ALUMINIUM POWDER MANUFACTURING PROCESS**

- 13.1 Product Overview
- 13.2 Detailed Process Flow (Atomized Aluminium Powder)
- 13.3 Various Types of Unit Operations Involved (Atomized Aluminium Powder)
- 13.4 Detailed Process Flow (Aluminum Flake Powder)
- 13.5 Various Types of Unit Operations Involved (Aluminum Flake Powder)
- 13.6 Mass Balance and Raw Material Requirements
  - 13.6.1 Aluminium Powder (Atomized): Aluminum Ingots as a Raw Material
  - 13.6.2 Aluminium Powder (Flake Type): Aluminum Scrap as a Raw Material
  - 13.6.3 Aluminum Paste: Aluminum Ingots as a Raw Material

## **14 PROJECT DETAILS, REQUIREMENTS AND COSTS INVOLVED**

- 14.1 Land Requirements and Expenditures
- 14.2 Construction Requirements and Expenditures
- 14.3 Plant Layout
- 14.4 Plant Machinery



- 14.5 Machinery Pictures
- 14.6 Raw Materials Requirements and Expenditures
- 14.7 Raw Material and Final Product Pictures
- 14.8 Packaging Requirements and Expenditures
- 14.9 Utilities Requirements and Expenditures
- 14.10 Manpower Requirements and Expenditures
- 14.11 Other Capital Investments

## **15 LOANS AND FINANCIAL ASSISTANCE**

## **16 PROJECT ECONOMICS**

- 16.1 Capital Cost of the Project
- 16.2 Techno-Economic Parameters
- 16.3 Product Pricing and Margins Across Various Levels of the Supply Chain
- 16.4 Taxation and Depreciation
- 16.5 Income Projections
- 16.6 Expenditure Projections
- 16.7 Financial Analysis
- 16.8 Profit Analysis

## **17 KEY PLAYER PROFILES**

- 17.1 MEPCO
  - 17.1.1 Company Overview
  - 17.1.2 Company Description
- 17.2 MMPIL
  - 17.2.1 Company Overview
  - 17.2.2 Company Description
- 17.3 Arasan
  - 17.3.1 Company Overview
  - 17.3.2 Company Description
- 17.4 Sri Kaliswari
  - 17.4.1 Company Overview
  - 17.4.2 Company Description
- 17.5 SunArk
  - 17.5.1 Company Overview
  - 17.5.2 Company Description

## List Of Tables

### LIST OF TABLES

Table 1: India: Aluminium Powder Market: Key Industry Highlights, 2023 and 2032

Table 2: India: Aluminium Powder Market: Import Data of Major Countries, 2022

Table 3: India: Aluminium Powder Market: Export Data of Major Countries, 2022

Table 4: India: Aluminium Powder Market Forecast: Breakup by Region (in Tons), 2024-2032

Table 5: India: Aluminium Powder Market Forecast: Breakup by End-Use (in Tons), 2024-2032

Table 6: India: Aluminium Powder Market Forecast: Breakup by Technology (in Tons), 2024-2032

Table 7: India: Aluminium Powder Market Forecast: Breakup by Raw Material (in Tons), 2024-2032

Table 8: India: Aluminium Powder Market Forecast: Breakup by Furnace Type (in Tons), 2024-2032

Table 9: India: Aluminium Powder Market: Competitive Landscape

Table 10: Aluminium Powder Manufacturing Plant: Cost Comparison of Various Types of Furnaces

Table 11: Aluminium Powder Manufacturing Plant: Advantages and Disadvantages of Various Types of Furnaces

Table 12: Aluminium Powder Manufacturing Plant: Testing and Laboratory Equipments Required

Table 13: India: Aluminium Powder Industry: BIS Standards and Product Specifications

Table 14: Aluminium Powder Manufacturing Plant: Vendors and Turnkey Solutions (Domestic and International)

Table 15: Aluminium Powder Manufacturing Plant: Independent Consultants in India

Table 16: India: Aluminium Powder Industry: Raw Material Suppliers

Table 17: Atomized Aluminium Powder: Major Physical and Chemical Properties

Table 18: Atomized Aluminium Powder: Various Grades Based on Particle Size

Table 19: Aluminium Powder Manufacturing: Minor Raw Materials for Explosives and Additive Manufacturing Grade Al Powder

Table 20: Aluminium Powder Manufacturing Plant: Raw Material Requirements (in Tons/day)

Table 21: Aluminium Powder Manufacturing Plant: Costs Related to Land and Site Development (in US\$)

Table 22: Aluminium Powder Manufacturing Plant: Costs Related to Civil Works (in US\$)

Table 23: Aluminium Powder Manufacturing Plant: Costs Related to Plant and Machinery (in US\$)

Table 24: Aluminium Powder Manufacturing Plant: Raw Materials Requirement (in Tons/Day) and Expenditures (in US\$/Ton)

Table 25: Aluminium Powder Manufacturing Plant: Costs Related to Utilities

Table 26: Aluminium Powder Manufacturing Plant: Costs Related to Salaries and Wages (in US\$)

Table 27: Aluminium Powder Manufacturing Plant: Costs Related to Other Capital Investments (in US\$)

Table 28: Details of Financial Assistance Offered by Financial Institutions

Table 29: Aluminium Powder Manufacturing Plant: Capital Costs (in US\$)

Table 30: Aluminium Powder Manufacturing Plant: Techno-Economic Parameters

Table 31: Aluminium Powder Manufacturing Plant: Taxation (in US\$/Year)

Table 32: Aluminium Powder Manufacturing Plant: Depreciation (in US\$/Year)

Table 33: Aluminium Powder Manufacturing Plant: Income Projections (in US\$)

Table 34: Aluminium Powder Manufacturing Plant: Expenditure Projections (in US\$)

Table 35: Aluminium Powder Manufacturing Plant: Cash Flow Analysis Without Considering the Income Tax Liability

Table 36: Aluminium Powder Manufacturing Plant: Cash Flow Analysis on Considering the Income Tax Liability

Table 37: Aluminium Powder Manufacturing Plant: Profit and Loss Account (in US\$)

Table 38: MEPCO: Key Financials (in US\$ Million)

## List Of Figures

### LIST OF FIGURES

Figure 1: India: Aluminium Powder Market: Major Drivers and Challenges

Figure 2: India: Aluminium Powder Market: Consumption Volume (in Tons), 2018-2023

Figure 3: India: Aluminium Powder Market: Consumption Value (in '000 US\$), 2018-2023

Figure 4: Aluminium Powder Market: Price Structure Analysis

Figure 5: India: Aluminium Powder Market: Average Prices (in US\$/Ton), 2018-2023

Figure 6: India: Aluminium Powder Market Forecast: Average Prices (in US\$/Ton), 2024-2032

Figure 7: India: Aluminium Powder Market: Breakup by Region (in %), 2023

Figure 8: India: Aluminium Powder Market: Breakup by End-Use (in %), 2023

Figure 9: India: Aluminium Powder Market: Breakup by Technology (in %), 2023

Figure 10: India: Aluminium Powder Production: Breakup by Raw Material (in %), 2023

Figure 11: India: Aluminium Powder Production: Breakup by Furnace Type (in %), 2023

Figure 12: India: Aluminium Powder Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 13: India: Aluminium Powder Market Forecast: Consumption Value (in '000 US\$), 2024-2032

Figure 14: India: Aluminium Powder Market: Import Volume Breakup by Country (in %), 2022

Figure 15: Germany: Aluminium Powder Market: Import Volume (in Tons), 2018-2022

Figure 16: India: Aluminium Powder Market: Export Volume Breakup by Country (in %), 2022

Figure 17: Mozambique: Aluminium Powder Market: Export Volume (in Tons), 2018-2022

Figure 18: India: Aluminium Powder Industry: SWOT Analysis

Figure 19: India: Aluminium Powder Industry: Value Chain Analysis

Figure 20: India: Aluminium Powder Industry: Porter's Five Forces Analysis

Figure 21: North India: Aluminium Powder Market: Consumption Volume (in Tons), 2018 & 2023

Figure 22: North India: Aluminium Powder Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 23: South India: Aluminium Powder Market: Consumption Volume (in Tons), 2018 & 2023

Figure 24: South India: Aluminium Powder Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 25: East India: Aluminium Powder Market: Consumption Volume (in Tons), 2018 & 2023

Figure 26: East India: Aluminium Powder Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 27: West India: Aluminium Powder Market: Consumption Volume (in Tons), 2018 & 2023

Figure 28: West India: Aluminium Powder Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 29: India: Aluminium Powder (in Pyrotechnics Industry) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 30: India: Aluminium Powder (in Pyrotechnics Industry) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 31: India: Aluminium Powder (in Other Industries) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 32: India: Aluminium Powder (in Other Industries) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 33: India: Aluminium Powder (Air-Atomization) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 34: India: Aluminium Powder (Air-Atomization) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 35: India: Aluminium Powder (Gas Atomization) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 36: India: Aluminium Powder (Gas Atomization) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 37: India: Aluminium Powder (from Aluminum Ingots) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 38: India: Aluminium Powder (from Aluminum Ingots) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 39: India: Aluminium Powder (from Aluminum Scrap) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 40: India: Aluminium Powder (from Aluminum Scrap) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 41: India: Aluminium Powder (Using Oil-Fired Furnace) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 42: India: Aluminium Powder (Using Oil-Fired Furnace) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 43: India: Aluminium Powder (Using Gas-Fired Furnace) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 44: India: Aluminium Powder (Using Gas-Fired Furnace) Market Forecast:

Consumption Volume (in Tons), 2024-2032

Figure 45: India: Aluminium Powder (Using Electric Furnace) Market: Consumption Volume (in Tons), 2018 & 2023

Figure 46: India: Aluminium Powder (Using Electric Furnace) Market Forecast: Consumption Volume (in Tons), 2024-2032

Figure 47: India: Aluminium Powder Market: Breakup by Key Players (in %), 2023

Figure 48: Aluminium Powder Manufacturing: Detailed Process Flow

Figure 49: Aluminium Powder Manufacturing: Various Types of Unit Operations Involved

Figure 50: Aluminum Flake Powder Manufacturing: Various Types of Unit Operations Involved

Figure 51: Aluminium Powder Manufacturing: Conversion Rate of Feedstocks

Figure 52: Aluminum (Flake) Powder Manufacturing: Conversion Rate of Feedstocks

Figure 53: Aluminum Paste Manufacturing: Conversion Rate of Feedstocks

Figure 54: Aluminium Powder Manufacturing: Proposed Plant Layout

Figure 55: Aluminium Powder Manufacturing Process: Breakup of Capital Costs (in %)

Figure 56: Aluminium Powder Industry: Profit Margins at Various Stages of Supply Chain

Figure 57: Aluminium Powder Manufacturing: Breakup of Operational Costs

## I would like to order

Product name: Indian Aluminium Powder Market Report by End-Use (Pyrotechnics Industry), Technology (Air-Atomization), Raw Material (Aluminum Ingots, Aluminum Scrap), Furnace Type (Oil-Fired Furnace, Gas-Fired Furnace, Electric Furnace), and Region 2024-2032

Product link: <https://marketpublishers.com/r/IC165C651ED2EN.html>

Price: US\$ 2,699.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/IC165C651ED2EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970