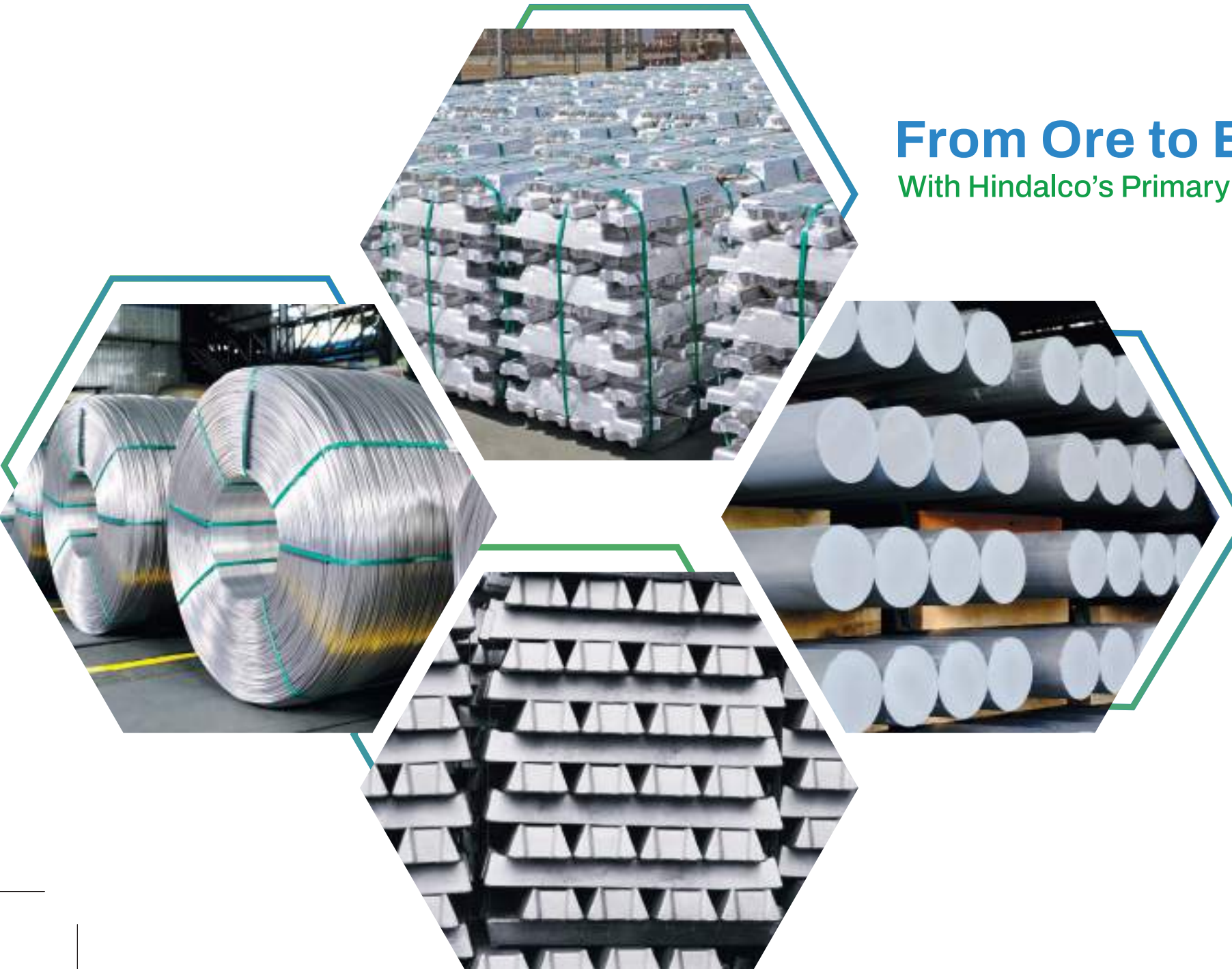


From Ore to Excellence

With Hindalco's Primary Aluminium Products



About Aditya Birla Group

Aditya Birla Group (ABG), a global conglomerate with a turnover of \$63 Billion, is in the league of Fortune 500 companies. Headquartered in India, the Group is present across 14 industry sectors. It has achieved global and national market leadership in several sectors like metals, pulp and fibre, chemicals, textiles, carbon black, cement, financial services, and fashion retail.

About Hindalco

Hindalco Industries Limited is the metals flagship company of the Aditya Birla Group and a global leader in Aluminium, Copper, and Specialty Alumina. It is India's largest fully integrated aluminium manufacturer and one of Asia's top primary aluminium producers. Its subsidiary, Novelis Inc., is the world's largest aluminium rolling company and recycler.

Hindalco also operates a major copper smelter and fertiliser plant, and is the third-largest copper cathode rod manufacturer outside China.

Our specialty alumina (Chemicals) business is at the forefront of the industry in India and is recognised as a prominent global player in specialty alumina and hydrates.



Our Commitment to Sustainability

Carbon Footprint

Currently, 80% of waste is re-used, including 2.3 M tons of red mud and over 100% of fly ash.



Environmental Effects

Hindalco aims to reduce net water intensity by 30% by FY'25 compared to 2019, saving over 18 MCM of water annually.



Recycling of Waste

During the fiscal year 2022, Hindalco processed and recycled 2.2 MM tons of aluminium scrap.



Impact on Biodiversity

Hindalco contributes to environmental conservation with 190 HA of greenbelt and 450,000 trees planted each year.



HINDALCO INDUSTRIES

TOP 1%

S&P Global (DJSI) ESG Score 2024

87 / 100

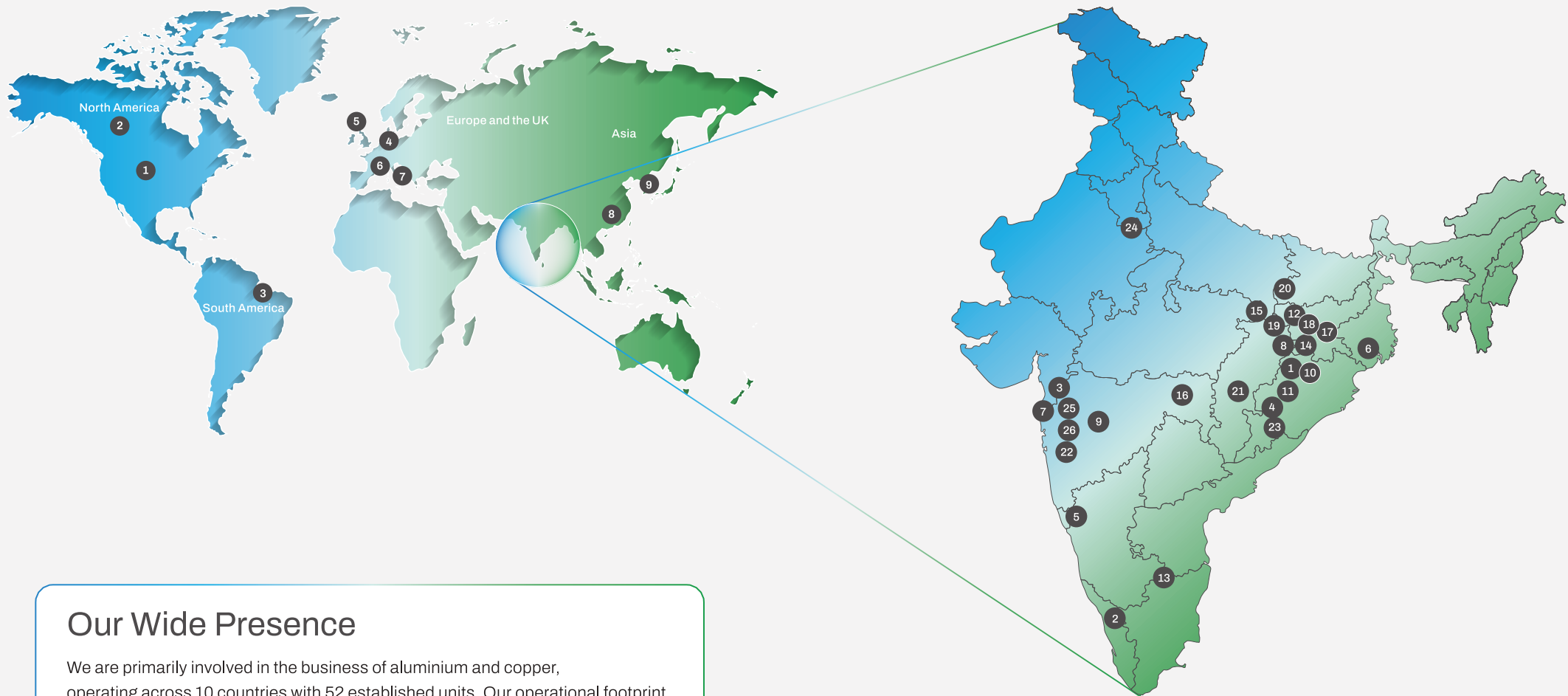
as of February 7, 2024.

Position and Score are industry specific and reflect exclusion screening criteria. Learn more at spglobal.com/esg/yearbook

ESG Targets

- Zero net carbon & net loss of biodiversity by 2050.
- 100% of electricity requirement from renewable energy by 2050.
- Zero waste to landfill by 2050.
- Zero harm to occupational health & safety.

At Hindalco, our unwavering commitment to enriching lives is intricately woven into our sustainability efforts. We firmly believe in creating a greener future, and to achieve this, we are committed to attaining our environmental goals. Our ESG commitment is deeply ingrained in our strategic priorities, which drive positive change and make a lasting impact on the planet. Awarded "Most Sustainable Aluminium Company" in Dow Jones sustainable indices five years in a row from 2020-2024.



Our Wide Presence

We are primarily involved in the business of aluminium and copper, operating across 10 countries with 52 established units. Our operational footprint across India has been indicated on the map.

Novelis' Global Operations

North America and South America

Novelis Inc.	
1. US	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
2. Canada	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
3. Brazil	■ ■ ■ ■ ■ ■ ■ ■ ■ ■

Europe and the UK

4. Germany	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
5. UK	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
6. Switzerland	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
7. Italy	■ ■ ■ ■ ■ ■ ■ ■ ■ ■

Asia

8. China	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
9. South Korea	■ ■ ■ ■ ■ ■ ■ ■ ■ ■

Domestic Operations

1. Aditya Aluminium	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	8. Gare Palma (IV/IV)	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	15. Mahan	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	22. Talaja	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
2. Alupuram	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	9. HAAL	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	16. Mouda	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	23. Utkal Alumina	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
3. Asoj	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	10. Hirakud FRP	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	17. Muri	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	24. Bhiwadi	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
4. Baphimali	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	11. Hirakud S&P	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	18. Netarhat (4 mine sites)	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	25. Silvassa	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
5. Belagavi	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	12. Kathautia	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	19. Renukoot	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	26. Pune	■ ■ ■ ■ ■ ■ ■ ■ ■ ■
6. Belur works	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	13. Kuppam	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	20. Renusagar	■ ■ ■ ■ ■ ■ ■ ■ ■ ■		
7. Dahej	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	14. Lohardaga (4 mine sites)	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	21. Samri	■ ■ ■ ■ ■ ■ ■ ■ ■ ■		

■ CPP ■ Refinery ■ Smelter ■ Extrusion/FRP/Foil ■ Bauxite ■ Coal ■ Copper ■ Personal Mobility Solutions

Our Innovation Capabilities

Innovation is not just our biggest tool; it is the foundation of our journey to unveil new products, combinations, and designs to cater to an array of opportunities.

Our innovation capabilities are one part of the equation, with external associations and industry learnings completing the loop. We invest in partnerships, specialised innovation centres, and state-of-the-art facilities to bolster our innovation capabilities.

Our innovation centres at Belagavi and Taloja in India are recognised by the Department of Scientific and Industrial Research (DSIR). This relentless pursuit of ours is substantiated through new patents, well-equipped innovation labs and our increased spending on Research and Development (R&D).

Key Highlights

529

Patents Filed

427

Patents Granted

62

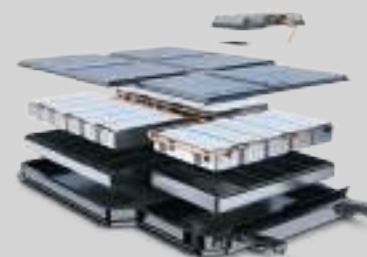
New Products
Developed



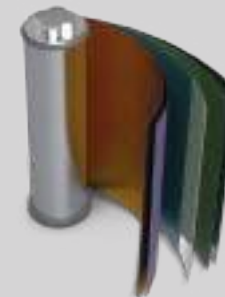
India's First All-Aluminium Freight Rail Rakes



Cargo Solutions for Commercial Vehicles



Battery Enclosure for Personal Mobility EVs



Aluminium foil for Li-ion battery current collectors

One Hindalco Many Solutions

At Hindalco, we offer materials, products and solutions engineered to suit the needs of various applications across sectors.



Our 5 Range Brands Offers Unique Benefits Across Sectors:

	Products/solutions that are circular in nature and hold recreation or recycling at their core.	Ingots from Recycled Aluminium, Aluminium Circles for Cookware, Aluminium Foil for Food Packaging, Copper Rods.
	Products/solutions that are zero or low carbon, use alternate sources of energy, and are ultimately greener, smarter, and better.	Primary Ingots made using Renewable Energy, Ultra light Gauge Aluminium Foil for Packaging.
	Products/solutions which promise use of superior technology to deliver precision and meeting exacting standards for high-tech applications.	Precision Extrusions for Transport, Aerospace, Defence and Electricals & Electronics, AluAlu foil for Pharmaceutical Packaging, Aluminium Rolled Stock for Closure, Clad, Litho, Detonators, Fin, Foil and Battery Foil, Copper Oxygen-Free Rods, Copper-Magnesium & Copper-Silver Rods for Railway Electrification, Copper Inner Groove Tubes for Air Conditioning and Refrigeration, Speciality Alumina Solutions for Refractory, Ceramics, Polishing, and Battery applications, EV Battery Frame Solutions, E-Cycle Components, Battery Foil Solutions and Crash Components.
	Products/solutions that offer the promise of durability and toughness.	Roofing and Façade Solutions for B&C, Bus Body Solutions.
	Product/ solutions that offer safety as their core value proposition.	Flame Retardant Solutions for Electrical Transmission, Building and Construction, Automotive, Railways and many more.

Introduction to Primary Aluminium

Hindalco is a top aluminium producer in Asia with fully integrated operations, from ore extraction to customer-ready products. Our advanced smelters and supporting facilities ensure high-quality metal and reliable production.

We offer a diverse range of products, including ingots, billets, and wire rods. Hindalco stands out as a leader in the aluminium industry, backed by robust management practices.



Aluminium Ingot & Sow



Hindalco's Primary Aluminium, available in purity grades from P1020 to P0201 (99.94% aluminium purity), is engineered to deliver unmatched quality and performance. Known for its high strength-to-weight ratio, superior corrosion resistance, and excellent thermal conductivity, it is the ideal material for demanding applications such as aircraft structures, engine components, and defense equipment. Designed to meet the most rigorous standards, Hindalco's Primary Aluminium ensures reliability and efficiency across industries.

INGOT	
Weight	22.7 Kg approx.; weight range: (21.6 – 23.8 Kgs)
Dimensions	738 x 176 x 114 mm approx.
Height of bundle	1005 – 1060 mm
Pcs. Per Bundle	44 Nos.
Bundle Weight	1000+/- 50 kg
Packing	Pet Strap

SOW	
Weight	450 +/- 50 kg
Dimensions	1020 x 910 x 248 mm approx.
Bundle Weight	Supplied as Individual Pcs
Packing	No Packing

Aluminium Billets

Hindalco's Aluminium Billets are engineered for superior performance, featuring high beta to alpha conversion that ensures smooth and efficient extrusion. These billets can be extruded into a wide variety of shapes, making them ideal for structural applications in buildings and infrastructure. With exceptional versatility, Hindalco Aluminium Billets serve industries such as automotive, aerospace, construction, and other industrial applications, delivering strength, durability, and reliability across diverse sectors.

Grade	All Aluminium Alloy (AAA)
Standard	AA
Alloy	1 xxx Series, 6 xxx Series
Billet Diameter (all in mm)	127, 152, 177.8, 203.2, 228.6 & 254
Diameter Tolerance	+/- 0.5 mm % of nominal diameter
Billet Length	5800 to 6300 mm
Packing	Strapped with steel straps binded and mounted on wooden pallets for safe handling and transit
Technology Used	Wagstaff Shurcast Dual Jet Air Slip
Homogenizing Technology	Continuous homogenisation with controlled temperature variation



Aluminium Wire Rod



Hindalco's Wire Rods are designed for excellence in performance and versatility. With exceptional conductivity, they are ideal for electrical wiring and components. Their superior drawability allows wires to be drawn as fine as 0.20 mm, making them perfect for intricate applications. Manufactured with high purity, Hindalco Wire Rods deliver quality and reliability across a wide range of industries.

Product	Wire Rod
Capacity	150 KT
Rod Diameter	9.5 mm, 12 mm
Rod Dia Tolerance	+/- 0.5 mm
Inner Diameter	570 mm
Outer Diameter	1700 mm max
Weight Per Coil	2000 – 2800 Kg
Technology	Continuous Properzi - Italy
Alloys	AA1370, 6201, Al59,8176
Packaging	Eye to wall position, mounted on wooden pallet and packed suitably for safe handling and transit
Application	Cables, Conductors, Winding Wires, Strips, Packaging, Metallising

Diameter	
Specified Diameter (mm)	Deviation of mean diameter from specified diameter (mm)
9.5	± 0.5
12	± 0.5

Tensile & Elongation			
Description (Temper)	Tensile Strength kgf/mm ²	Tensile Strength Mpa	Elongation % at 250mm GL (Min)
1350 – O	8 – 9	79 – 88	23
1350 – H12	9 – 10	83 – 117	19
1350 – H14	10.5 – 11.8	103 – 132	10
1350 – H16	11.9 – 14.0	103 – 132	5

Conductivity & Resistivity		
Description	Minimum Conductivity % IACS, Min	Volume Electrical Resistivity at 20°C ohm.mm ² /m, Max
1350 – O	62	0.027899
1350 – H12	61.5	0.028035
1350 – H14	61.4	0.02808
1350 – H16	61.4	0.02808

Primary Foundry Alloys

Hindalco's Primary Foundry Alloys are certified by Nikkin Lab, Japan, for exceptional efficiency and superior metal hygiene. Engineered to meet the highest quality standards, these alloys are the preferred choice for critical applications in the automobile and automotive industries, including commercial vehicles. With unmatched reliability and performance, Hindalco's Primary Foundry Alloys ensure optimal results for demanding industrial needs.



Ecoedge.G - Low Carbon Primary Aluminium



ECOEDGE.G is Hindalco's low carbon aluminium brand which carries GHG emission intensity of 4 tons of CO₂ equivalent per ton of Aluminium. The renewable energy from various projects like solar power plant, floating solar power plant, pumped hydro projects allows production and certification of ECOEDGE.G range of products with emission intensity that is classified as low carbon, globally. These products are certified by reputed independent agencies with full traceability till cast ID level.

Hindalco offers ECOEDGE.G range of products across all cast house products like high purity primary Ingots/Sows, Billets for extrusion, Primary Foundry Alloys for automotive wheels & other applications and Wire Rods.

Ecoedge.C Recycled Ingots

Hindalco has set up first of its kind recycling facility to recycle Used Beverage Cans. Metal output from this plant is made primarily from post-consumer aluminium beverage cans and have very low carbon footprint. Hindalco has launched recycled Ingots to offer low carbon and sustainable solutions to our customers and end consumers.

EcoEdge.C represents Hindalco's commitment to Circularity in aluminium.

Particulars	Specifications
Grade	3104 Alloy
Ingot Weight	~10 Kg and ~23 Kg
Ingot Dimensions	10 Kg: 730 x 100 x 75 mm approx. 23 Kg: 738 x 176 x 114 mm approx.
Height of Bundle	1005 – 1090 mm approx.
Bundle Weight	880 – 1050 Kg
Packing	Pet Strap



Industries We Serve

Our primary aluminium products have diverse applications across industries:
Building & Construction | Electrical & Electronics | Aerospace & Defence |
Transport | Powder & Chemicals | Consumer Durables | Packaging Industry



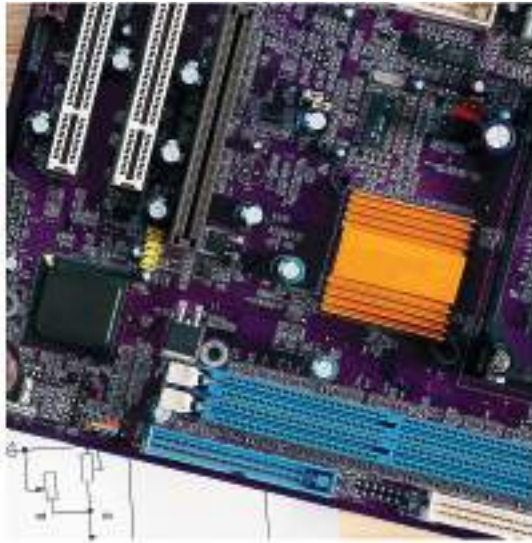


Building & Construction

Hindalco's primary aluminium products are essential to modern construction, combining strength, sustainability, and aesthetic versatility. Lighter than steel, aluminium is easier to handle and transport, while its high strength-to-weight ratio enables resilient structures. Its corrosion resistance enhances building longevity and reduces maintenance. Available in various shapes and finishes, it supports innovative designs and modern aesthetics, including anodising and powder coating. Being 100% recyclable without quality loss, aluminium is a sustainable choice for eco-friendly construction.

Applications:

- Facades and Cladding • Windows and Doors • Roofing
- Interior Applications • Structural Components



Electrical & Electronics

Hindalco is a leading wire rod manufacturer, utilising advanced mills with in-line degassing and filtration for superior quality. Produced through continuous casting and rolling, its wire rods serve electrical and alloy applications, including cables, ACSR, AAC, and AAAC conductors. Known for strength, lightness, and high conductivity, Hindalco's Aluminium Wire Rods are ideal for wiring harnesses, power cables, transformers, motor rewinds, and high-voltage lines. Special grades cater to wire sizes below 0.20 mm for the winding wire industry. Aluminium's corrosion resistance, recyclability, and cost-effectiveness make it a durable, lightweight, and eco-friendly choice for electrical systems.

Applications:

- Conductors • Transformers • Heat Sinks • Housing and Enclosures
- Lighting Solutions • Power Distribution • Consumer Electronics



Aerospace & Defence

Hindalco is the only producer of high-purity aluminium, which is crucial for critical aerospace and defence applications, offering unmatched performance, reliability, and sustainability. Its high-purity aluminium, including rolled aluminium plates and sheets, is designed for fuselage and wing structures, enabling lighter, stronger, and more fuel-efficient aircraft. With minimal impurities, it provides superior strength, corrosion resistance, and efficient heat dissipation, making it ideal for structural components, electrical systems, and thermal management solutions in these demanding industries.

Applications:

- Aircraft Structures • Engine Components • Defence Equipment
- Thermal Management • Commercial Aircraft • Defence Systems



Transport

Hindalco's primary aluminium and foundry aluminium alloys play a vital role in the transport sector, delivering exceptional performance, sustainability, and versatility. Their lightweight nature reduces vehicle weight, improving fuel efficiency and lowering emissions, while a high strength-to-weight ratio ensures structural integrity for enhanced safety and durability. With excellent corrosion resistance, these materials extend the lifespan of components exposed to harsh environments, reducing maintenance costs and supporting a more sustainable future.

Applications:

- Automobiles • Aerospace • Railways • Marine
- Commercial Vehicles • Automotive Industry • Aerospace Projects



Powder & Chemicals

Hindalco's primary aluminium is vital to the powder and chemicals industry, offering high purity, versatility, and sustainability. Its high purity ensures consistent performance in sensitive applications, while its durability and stability enhance chemical processes by minimising degradation over time. Additionally, aluminium's lightweight nature reduces shipping and handling costs in powder form, making it an environmentally friendly and cost-effective choice for manufacturers.

Applications:

- Aluminium Powders
- Coatings and Paints
- Additives
- 3D Printing
- Composite Materials
- Explosives Industry



Consumer Durables

Hindalco's Primary Aluminium is key to the consumer durables sector, offering durability, lightweight properties, and sustainability. Its light weight makes products easier to handle and reduces shipping costs, while its excellent resistance to corrosion, wear, and impact ensures long-lasting consumer goods. With versatile finishes like anodising and powder coating, Hindalco aluminium supports modern, attractive designs. Being 100% recyclable, it meets the growing demand for eco-friendly products, while its excellent thermal properties make it ideal for appliances requiring heat management, such as cookware.

Applications:

- Home Appliances • Cookware • Electronics
- Furniture • Packaging



Packaging Industry

Hindalco's primary aluminium is crucial for the packaging industry, offering durability, sustainability, and aesthetic appeal. It protects products from moisture, light, and oxygen, preserving freshness and integrity. Resistant to corrosion and damage, it ensures safe storage and transport. Aluminium's recyclability, lightweight nature, and ability to be easily printed make it an eco-friendly, cost-efficient choice for packaging with enhanced branding and logistic efficiency.

Applications:

- Food Packaging • Pharmaceuticals • Cosmetics • Household Products
• Flexible Packaging • Food & Beverage Brands • Pharmaceutical Companies



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