

# AUTO TRACK

INDIA'S FIRST AND ONLY MOTORSPORTS & OFF-ROAD MAGAZINE

**BLUEBAND INRC 2024**



**ADITYA and VIRENDER MAKE A COMEBACK at ROUND 3 in COIMBATORE**

OCTOBER 2024 | Rs. 99/-

**MRF 2W INRC**

RAJENDRA wins National Overall title in a last-mile thriller

**MRF 4W RACING**

JADEN PARIAT & ABHAY MOHAN clinch titles

**JK FLGB 4 - R2**

Diljith TS and Tijil Rao star

**INDIA'S FIRST EVER NIGHT STREET RACE**  
AT CHENNAI FORMULA RACING CIRCUIT



## Chennai's historic night race

at the spectacular street circuit, a big success

Parante and Hyman take top honours in IRL



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Hugh Barter & Alister Yoong excel in Round 1



**RAIN FOREST CHALLENGE**

Kerala's Dr. Fahed and Rajeev win in Goa '24

**SUPERCROSS**

SHLOK GHORPADE earns 'Best Rider' tag

**INTERNATIONAL**

Pragathi Gowda shines on debut, finishes third

**SCOOTER RALLY**

SHAMIM wins & ASIF is fastest

**MIKA Circuit**

World F1 champ Mika Hakkinen inaugurates





## Driving the future of automotive innovation with Hindustan Zinc

In the ever-evolving landscape of automotive manufacturing, the materials chosen for vehicle production are critical for achieving optimal performance, sustainability, and durability. Among these, zinc has emerged as a pivotal material, offering a multitude of benefits from light weighting and corrosion protection to enhancing the durability of key automotive components. As the global automotive sector continues to push the boundaries of sustainability and efficiency, zinc's role has become indispensable in shaping the future of vehicle design and manufacturing. At the forefront of this transformation is Hindustan Zinc, India's largest and the world's second-largest integrated zinc producer, providing cutting-edge solutions tailored to the automotive industry's needs. The company's focus on innovation and sustainability

places zinc-based products at the heart of new vehicle technologies.

### SIGNIFICANT FEATURE

One of the primary uses of zinc in the automotive sector is galvanization, a process where a layer of zinc is applied to steel to protect it from corrosion. Approximately 80% of a car's body structure, known as the Body-in-White (BIW), relies on zinc-coated steel for longevity and structural integrity. In regions exposed to erratic & heavy rainfall, heat, humidity, salt, extreme pollution or harsh environmental conditions, zinc's superior corrosion resistance ensures that vehicles remain corrosion-free for extended periods, significantly increasing their lifespan. A recent study from IIT Bombay and the International Zinc Association underscores the importance of zinc galvanization. Vehicles with non-

galvanized steel experience up to 65% corrosion within five years, while those with galvanized steel face only 7% corrosion in the same period. This demonstrates how zinc can dramatically extend the life of vehicles, providing value to both manufacturers and consumers. Hindustan Zinc offers a range of high-quality zinc products, including Special High-Grade Zinc and Continuous Galvanizing Grade Zinc, that are crucial in the galvanization process. These products not only provide robust corrosion protection but also ensure cost-efficiency for automakers, allowing them to extend vehicle warranties and improve overall vehicle durability. Additionally, Hindustan Zinc's latest offering, EcoZen, Asia's first low-carbon 'green' zinc, exemplifies the company's commitment to environmentally friendly products that help car manufacturers reduce their carbon footprint across the value

chain. Produced using renewable energy, the carbon footprint of EcoZen is about 75% lower than the global average making it a preferred choice for the automotive sector.

"As the automotive industry transforms, zinc stands out as a sustainable solution for the challenges of tomorrow," said Arun Misra, CEO of Hindustan Zinc. "We're committed to collaborating with Indian automakers to unlock zinc's potential and propel India's mobility future forward. Our zinc solutions are not only cost-effective and adaptable for complex designs but also environmentally responsible, making zinc a key material for a cleaner and more sustainable tomorrow," he added.

### PRODUCT APPLICATION

As automakers strive to meet stringent fuel efficiency and emission standards, light-weighting has become a top priority. Traditionally, materials such as aluminium and carbon fibre have been used to reduce vehicle weight, but zinc alloys are proving to be a highly effective alternative. Zinc's strength-to-weight ratio allows it to replace heavier materials without compromising on safety or structural integrity. Zinc alloys, such as those provided by Hindustan Zinc, are used to manufacture intricate, high-strength components. From engine parts and seatbelt mechanisms to door locks and electronic housings, zinc die-casting allows for the production of complex and durable components that are critical to vehicle safety and performance. The use of zinc alloys helps reduce overall vehicle weight, improving both fuel efficiency and reducing CO2 emissions. Hindustan Zinc is also playing a pioneering role in alternative battery technologies, such as zinc-air and zinc-ion batteries. These emerging battery solutions offer a cost-effective and sustainable alternative to traditional lithium-ion batteries, particularly for electric vehicles



(EVs). As EV adoption continues to rise globally, these zinc-based batteries hold great promise in improving energy storage and advancing environmentally friendly solutions.

Hindustan Zinc's focus on battery innovation aligns with the growing global demand for greener technologies in the automotive sector. With zinc being abundantly available and 100% recyclable, zinc-based batteries offer both cost advantages and sustainability benefits for EV manufacturers and consumers alike.

### FOR INDIAN AUTOMAKERS

As India emerges as one of the fastest-growing automotive markets in the world, the demands for durability, safety, and fuel efficiency are driving material innovations. The aspirations of India's burgeoning middle class are pushing automakers to produce vehicles that meet global standards while addressing local consumer needs. Zinc's pivotal role in

corrosion protection, light-weighting, and component manufacturing makes it a key material for Indian automakers seeking to enhance vehicle durability and performance.

"Our focus is to present product solutions that cater to the growing demand of the auto sector. The rising demand in the middle-class segment necessitates the evolution of automobiles that are long-lasting and durable," said Mr. Misra. The company is well-positioned to cater to the current and emerging needs of the Indian auto sector, offering a broad range of products that find usage across the automotive value chain – from casting to galvanizing to batteries.

With Hindustan Zinc leading the charge, the Indian automotive industry is well-positioned to adopt global best practices. He

further added, "As the country transitions to electric mobility, Hindustan Zinc's partnerships with automakers, industry bodies, and academic institutions will accelerate the development of zinc-based solutions that are cost-efficient, sustainable, and reliable."

As the automotive industry undergoes significant changes driven by technological advances and shifting market dynamics, zinc is set to play an even greater role in vehicle manufacturing. Moreover, Hindustan Zinc's offerings are the first in India to receive Environmental Product Declaration (EPD) verification, providing comparable data on the product's environmental footprint, along with ISO and BIS (Bureau of Indian Standards) certifications for quality. Additionally, Hindustan Zinc also has REACH quality certification for exporting its products to Europe.

Hindustan Zinc's innovative solutions, commitment to sustainability, and partnerships within the automotive ecosystem will ensure that zinc continues to drive innovation and efficiency in the sector, positioning both the company and the Indian automotive industry for a bright and sustainable future. ■

