



# MANUFACTURED CAPITAL

Grasim's resilient manufacturing facilities, encompassing tangible assets, infrastructure, and technological prowess, propel our long-term sustainable growth. Our ongoing investments in cutting-edge technology and state-of-the-art manufacturing facilities optimise resource use, pioneering sustainable production methods in the industry. These scalable and innovation-driven facilities continue to be the cornerstone of our industry position, creating holistic value for our shareholders and communities while enhancing our environmental stewardship. All strategic decisions, rooted in our culture and commitment to excellence, originate from and are driven by our manufacturing units, embodying our pledge to be 'A Force for Good' in everything we do.

#### Alignment with SDGs



## FY 2023-24 HIGHLIGHTS

# 812

**KT**  
Cellulosic Staple Fibre  
production

# 1,200

**KT**  
Caustic Soda production

# 3

**Paints plants  
commissioned**

# 96%

**Capacity Utilisation  
(CSF)**

# 88%

**Capacity Utilisation  
(Caustic Soda)**

# 62%

**Chlorine Integration**

## OUR APPROACH

We have adopted a multi-faceted approach to building and scaling our manufacturing facilities to meet the dynamically changing needs of our customers as well as evolving regulatory, market and technology trends. Our core focus remains on building assets and infrastructure that optimise operational excellence, incorporate advanced technology to accelerate products and process innovation, and ensure the development of quality products that set new benchmarks in sustainability. Our dedication to quality extends to every aspect of our product portfolio. From Textiles to Paints, our products are crafted to meet the highest industry standards and exceed customer expectations.

Our investments in state-of-the-art technology continuously improve the efficiency and efficacy of our manufacturing processes while strengthening the integration of sustainable solutions across the production lifecycle. A focus on process stewardship enables us to optimise production flow and manage our resources, driving operational efficiency and cost-effectiveness.

# 842

**KTPA**  
Capacity of Cellulosic  
Staple Fibre

# 1,359

**KTPA**  
Capacity of Caustic Soda

#### Stakeholders Impacted

Employees  
Suppliers and Value  
Chain Partners  
Customers  
Government and Regulators  
Local Communities

#### Material Issues

Resource Efficiency  
Responsible Supply Chain  
Occupational Health and Safety  
Business Ethics  
and Compliance  
Product Stewardship  
Energy Consumption and  
GHG Emissions  
Quality and  
Customer Satisfaction

#### Key Risks

Strategic Risk  
External Risk  
Operational Risk  
Sustainability Risk  
Compliance Risk

#### Supporting / Aligned Policies

[Environmental Policy](#)  
[Energy and Carbon Policy](#)  
[Water Stewardship Policy](#)  
[Quality Policy](#)  
[Occupational Health Policy](#)  
[Safety Policy](#)  
[Suppliers Code of Conduct](#)  
[Responsible Supply  
Chain Policy](#)

## FOCUS AREAS

Operational Efficiency  
Capacity Expansion  
Product Stewardship  
Resource Management  
Quality Improvement  
Occupational Health and Safety  
Supply Chain Management





## MANUFACTURED CAPITAL

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### OPERATIONAL EFFICIENCY

At Grasim, we focus on process efficiency to leverage our large production capacities effectively. We prioritise the continuous adoption of innovative measures to optimise our manufacturing processes for quality, sustainability, and efficiency. This approach enhances product quality and ensures timely fulfilment of customer demands, allowing us to scale operations efficiently and capitalise on market opportunities with speed and precision.



#### CASE STUDY

#### Enhancing Operational Efficiency in the Chlor-Alkali Manufacturing Plant

Grasim's Chlor-Alkali manufacturing unit at Veraval faced the challenge of higher steam and auxiliary power usage per metric ton of caustic in Caustic Concentration Unit (CCU). This impacted our operational and cost efficiency, and led to an increased environmental footprint.

##### Methodology and Execution

To address these challenges, we launched an innovative project to reduce resource usage and enhance operational efficiency that focused on identifying and correcting inefficiencies in our processes and infrastructure to optimise steam and power consumption. The project focused on the installation of a new becorex within the CCU, enhancing the unit's alignment with industry benchmarks and significantly improving its operational performance at the facility.

##### Debottlenecking

To identify and remove bottlenecks in our CCU-1

##### Monthly Steam Trap Audits

To identify and plug any leaks or inefficiencies

##### Concentration Monitoring

Tracking and controlling concentration levels to reduce specific steam consumption

##### Insulation Surveys

To assess the effectiveness of insulation in reducing energy loss

##### Impact

The project yielded significant improvements in operational efficiency and resource utilisation at the plant. Overall, the initiatives resulted in recurring annual savings.

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### CAPACITY EXPANSION

With our production capacity expansion of Cellulosic Staple Fibre (CSF), Cellulosic Fashion Yarn (CFY), and Caustic Soda, we are committed to excellence and innovation. Our dedication to excellence and innovation has enabled us to set industry benchmarks and shape the market landscape. With our unmatched production capabilities and commitment to quality, we continue to lead the way in meeting the diverse needs of our customers through responsible value creation.



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### PRODUCT STEWARDSHIP

We are committed to product stewardship, which reflects our focus on environmentally responsible practices embedded in our corporate values. We recognise our responsibility to ensure the safety, sustainability, and integrity of our products throughout their entire lifecycle. From the sourcing of raw materials to manufacturing processes and distribution, we prioritise environmental stewardship and adhere to strict quality standards. Our policies, including environmental policy, supplier code of conduct, and wood fibre sourcing policy, enable us to advance product stewardship. We regularly review and update our policies to stay ahead of evolving market conditions and the regulatory landscape.

Our commitment extends beyond compliance with regulations; we proactively take measures to minimise environmental impact and enhance resource efficiency. Further, we encourage our suppliers to adopt similar principles, improving their processes and creating shared value.

We have effectively managed our sourcing of resources and reduced waste disposal to landfills and incineration. In FY 2023-24 we achieved 46% reduction in waste directed to landfill and recovered 94% of our waste generated.

For more information on waste management and circularity, please refer Natural Capital on Page 122

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### RESOURCE MANAGEMENT

We promote the responsible use of energy, water, and material alongside waste management to maximise efficiency and minimise environmental impact. We strive to reduce energy consumption and water usage across our operations through innovative technologies and process optimisation. We also focus on sustainable sourcing and recycling of materials to minimise waste generation and promote circularity in our supply chain. By prioritising resource efficiency in all aspects of our business, we contribute to a more sustainable future for our Company and the environment, aligning with our principles environmental stewardship and corporate responsibility.





## MANUFACTURED CAPITAL

### CASE STUDY

#### Enhancing Chiller Efficiency with Frigitech Solutions

At Cellulosic Fashion Yarn unit at Veraval, we improved heat transfer rates and reduced energy consumption by addressing oil fouling within chiller tubes. This fouling acts as an insulator, reducing heat transfer efficiency and increasing energy consumption over time.

#### Methodology and Execution

To address this issue, we conducted a trial using Frigitech media in one of our Blue Star chillers. This cleared existing oil layers from the tubes, enhancing heat transfer efficiency and chiller performance.

#### Impact

The adoption of Frigitech solutions has led to tangible improvements in chiller efficiency, translating into substantial energy savings and enhanced operational performance.

#### Liva Reviva: Transforming Textile Waste into Sustainable Fibres

With up to 80% of textile waste ending up in landfills annually, the textile industry faces a critical challenge in achieving circularity in the value chain.

#### Methodology and Execution

Cellulose Staple Fibre developed Liva Reviva, an innovative material made from 30% recycled textile waste and 70% wood pulp. This product was developed in-house over 18 months. We implemented reverse logistics to gather suitable waste for product development, enhancing value for small-scale textile waste recyclers. This initiative also promotes upcycling, preventing valuable materials from being discarded as waste.

#### Impact

Liva Reviva has had a significant positive environmental impact. Its manufacturing process uses 65% less water than generic viscose and generates 50% lower GHG emissions based on the Higg MSI tool provided by SAC. Liva Reviva achieved top rankings for P&F business in Canopy Audits for 3 consecutive years, supporting the reduction of textile waste.

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### QUALITY IMPROVEMENT

Through rigorous research and development, along with stringent monitoring and management processes, we continuously enhance the quality of our products. This aligns with our commitment to delivering market-leading, sustainable products. By adhering to regulatory requirements, we ensure that our products meet the highest industry standards. We enhance product quality through continuous innovation and process optimisation across every step of the production process, from sourcing of raw materials to finished goods. Our focus on quality excellence drives us to exceed customer expectations and maintain our position as a trusted leader in the industry. Read more about our Quality Policy [here](#).



### CASE STUDY

#### Innovating Sustainable Textiles with Excel Blends

The textiles industry faces increasing demand from stakeholders to adopt sustainable practices amid growing environmental concerns. Traditional Open-End (OE) yarns, often associated with low-quality applications and cotton waste, pose challenges for the industry in meeting its sustainability goals. Mechanical recycling of cotton fibres yields inferior-quality materials, hindering efforts to create eco-friendly products.

#### Methodology and Execution

Grasim addresses these challenges with its innovative Excel blend, combining OE yarn structure with high-quality Excel fibre (lyocell). Excel fibre offers uniformity, strength, whiteness, and versatility, compensating for the shortcomings of recycled cotton fibres. Manufacturers can achieve superior yarn quality, productivity gains, and enhanced fabric properties by blending recycled cotton with Excel fibre.

#### Impact

The adoption of Birla Cellulose's Excel blend revolutionises mechanical recycled yarn production, offering a sustainable alternative to traditional OE yarns. As a result, brands are willing to move from the traditional blends to more sustainable blends. By replacing conventional yarn requirements with recycled cotton-Excel blends, companies enhance sustainability across their operations while meeting consumer demand for eco-conscious products.

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### OCCUPATIONAL HEALTH AND SAFETY

The safety and well-being of our employees is paramount for Grasim's continued success. We ensure a safe working environment through regular training, hazard identification, and risk assessment. We are deeply committed to ensuring the health and safety of our employees through an Occupational Health and Safety (OHS) management system. We have established robust policies and procedures to maintain a safe working environment, including our OHS policy. This helps us create a culture of safety awareness and accountability to protect our workforce and uphold our commitment to ensuring excellence in health and safety management. Additionally, we conduct regular safety audits and inspections to ensure compliance and continuously improve our safety standards.

➤ For more information refer to Human Capital on **Page 146**







## MANUFACTURED CAPITAL

### CASE STUDY

#### Health and Safety Improvements with a Battery-Operated Pallet Truck: Rishra

Shifting heavy scrap boxes in the production process posed significant ergonomic risks to operators. The manual handling required two workers to push and pull loaded scrap boxes, leading to physical strain and a high potential for musculoskeletal injuries. Navigating these loads through the facility, especially in areas with limited space or obstacles, further exacerbated these risks.

#### Methodology and Execution

To address these health and safety concerns, a Battery-Operated Pallet Truck (BOPT) was developed in collaboration with Mac Spare. This solution was designed to allow single operator handling of scrap boxes, thereby reducing the number of workers exposed to physical strain. The BOPT integrated essential safety features such as emergency brakes and load sensors, alongside comprehensive operator training to ensure safe usage. Additionally, the design was optimised to navigate the uneven surfaces and obstacles within the facility, ensuring stable and efficient operation across various terrains.

#### Impact

##### Enhanced Safety

The BOPT's safety features and operator training significantly reduced the risk of accidents and injuries associated with manual handling of heavy loads.

##### Reduced Physical Strain

By eliminating the need for manual pushing and pulling, the BOPT improved ergonomics and reduced the risk of musculoskeletal injuries among operators.

##### Operational Efficiency

The shift to single-operator handling streamlined the process of moving scrap boxes, contributing to a safer and more efficient production environment.

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## SUPPLY CHAIN MANAGEMENT

Our success at establishing a sustainable supply chain expands the reach and impact of our responsible business practices. We prioritise ethical sourcing and mandate adherence to regulatory compliance and human rights principles, ensuring fair wages, safe working conditions, and ethical business practices across our value chain. Our supply chain management policies are designed to ensure efficiency, transparency, and ethical practices throughout our operations.

+ For more information, please refer Social and Relationship Capital on **Page 134**

We encourage our suppliers to actively seek innovative solutions by adopting the latest technologies and processes. This aims to enhance their operational sustainability. We also guide our suppliers in focusing on specific areas of their operations to enhance their operational efficiency and environmental performance. Additionally, our Supplier Code of Conduct ensures that our suppliers align with our approach, and are driven towards creating a responsible supply chain.

## NEW BUSINESS UPDATES



### Birla Opus

#### Project Update

We announced our entry into the Paints business in FY 2021-22 with an aim to launch by FY 2023-24. With our grit and commitment, we have successfully launched our brand 'Birla Opus' in March 2024, at our Panipat plant. In April 2024, we initiated commercial operations at three out of our six planned sites: Panipat, Cheyyar and Ludhiana. Commercial production at the three other sites is to start in phases by FY 2024-25.

Our 6 integrated plants shall have a total capacity of 1,332 MLPA. We have also set a target to become the second-largest player by capacity in the Indian decorative paints industry by the end of FY 2024-25. Leveraging our extensive experience in operations across various business sectors, we are expanding our presence and establishing distribution depots for Paints business across India.

#### Product Category

Birla Opus will be available across all decorative paints categories. Our product range across decorative paints includes Interior and Exterior Paints, Waterproofing, Enamels, and Wood Finishes. We ensure our products excel in quality, safety, and affordability. Our paint products are available through our B2B E-commerce platform, Birla Pivot, under the category of building materials.

#### Brand Identity and Advertising

We have a robust plan for establishing our brand identity. The advertisement promotion activities are progressing as per plan. We aim to craft a distinct and compelling brand image to resonate with our target audience. Concurrently, we are designing effective advertising campaigns to create awareness and generate buzz around the brand.

#### Capex Investment

Our planned outlay for Paints business is ₹10,139 crore. As of 31<sup>st</sup> March 2024, about ~₹7,000 crore has been spent. This represents approximately 70% of the total planned investment, reflecting our commitment to the set timelines.

#### Birla Pivot

In FY 2023-24, Birla Pivot celebrated its first full year of operating a one-stop B2B E-commerce platform designed to revolutionise the business practices of Small and Medium Enterprises. Our platform enables contractors and retailers to procure high-quality buildings materials from various brands at competitive prices, with easy access to financing and a seamless delivery experience.

In our first year, we grew rapidly and expanded our offerings across 35 product categories, comprising over 18,000 Stock Keeping Units (SKUs) sourced from 150+ Indian and international brands. This extensive range of products has enhanced our brand visibility. We have successfully delivered over 200 orders across 25 states and union territories.

