

INNOVATION - NEW BUSINESS, PRODUCTS & SERVICES

Enabling sustainable consumption

The global focus on slowing down climate change has had a profound impact on what consumers expect from products, services and the providers they choose. We have been working on generating a third of our portfolio revenues from 'good and green' products. This underlines our commitment to the future.

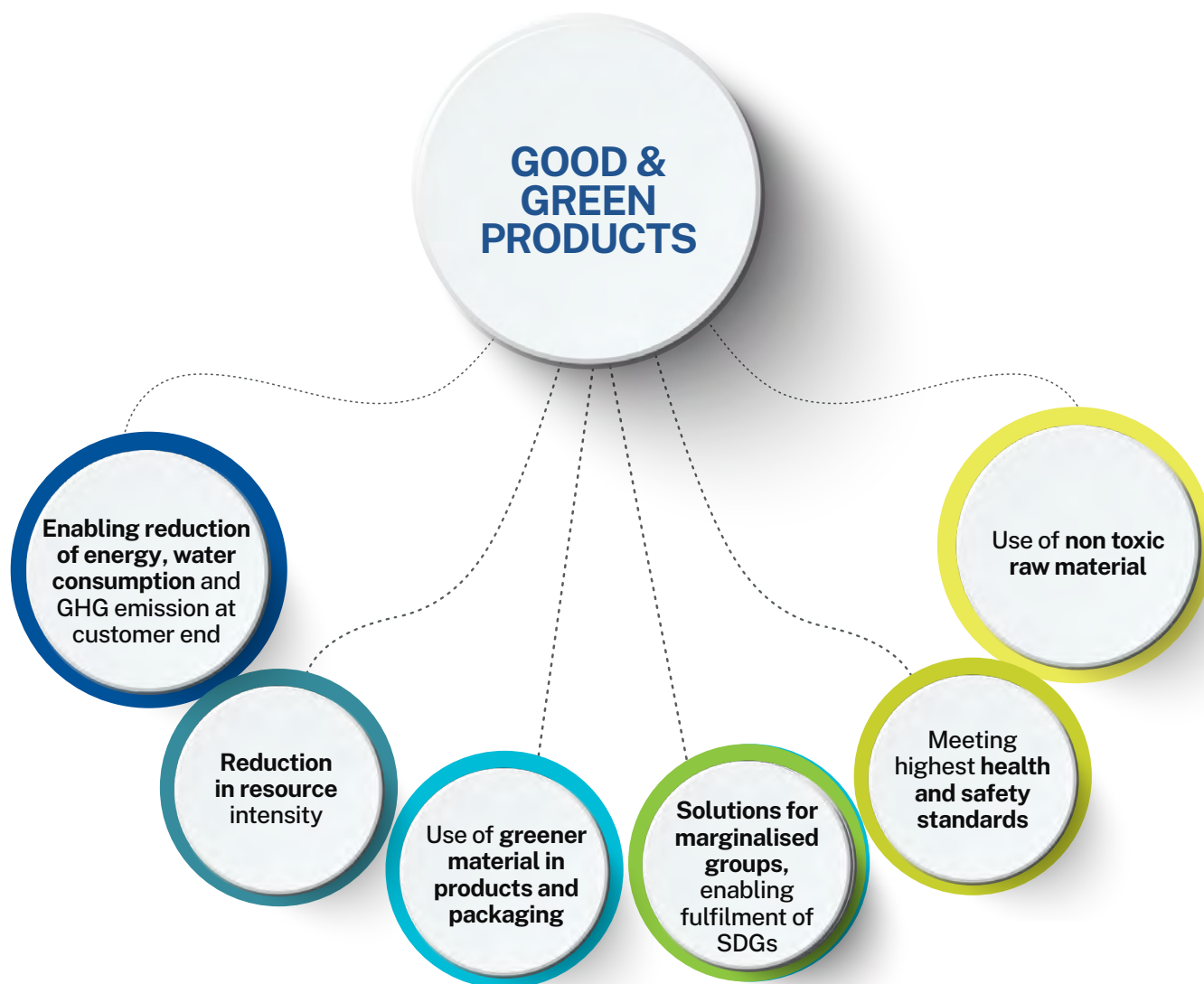


Built by Godrej Construction, Godrej Platinum project in Mumbai is a Platinum rated IGBC Green Home

Understanding 'good' and 'green'

Godrej believes that its products and services need to deliver greatest possible customer benefit, together with highest safety standards and maximum environmental standards and social compatibility. Continuous improvement,

technological advancement and consumer insights are some of the triggers which initiate embedment of sustainability features in the company product and service offerings. The attributes that define our Good and Green products are :



Innovation-led product development

While focusing on the planet and people's health, safety and well-being, our innovations are aligned to contribute towards India's goal of greater self-reliance. We are focused on developing capabilities for localised ecosystem to enhance import substitution, indigenous research that addresses Indian ecosystem, and standardisation of critical parts across key product categories. Such initiatives not only help us run leaner operations, but also builds the foundation for efficient, cost-effective manufacturing processes that further the case for 'Make in India'. All our businesses strive to innovate on products and services that create differentiated customer experience while ensuring the highest safety standards, minimal adverse environmental impact and

optimum social compatibility. Other priorities that underline our 'good and green products' philosophy are cost competitiveness and long-term business sustainability. Many of our mass-market, customer-focused businesses like appliances, locks and interiors have a structured multi-generational product plan and develop products keeping in mind ambitions for increasing market coverage, evolving consumer mind share, industry leadership and sustainability goals.

GODREJ INTERIO: FURNITURE DESIGNED FOR WELLNESS

SDGs impacted



Interio has been reimagining work and living spaces in ways that fit with today's fast, space-constrained lifestyles and the desire for good health. The traditional work chair has been given an overhaul with the introduction of the 'Active seating' concept which addresses the user's need for greater comfort given the long hours that many spend in a seated position. In the Motion chair, the ergonomic innovation revolves around the flexible back structure that adapts intuitively

to changes in posture. The Motion chair uses flex material instead of traditional plastic, making multi-dimensional movement and ergonomic comfort easy.

The material usage has been optimised to achieve

20%

lesser weight than conventional chairs, leading to greater affordability and better value for the customer. The 'Motion' feature supports the body and reduces stiffness and cramps.



Refrigeration solutions by Godrej Appliances for vaccine delivery

GODREJ INTERIO: FURNITURE DESIGNED FOR WELLNESS

SDGs impacted



The COVID-19 vaccine rollout proved the strength and viability of the 'Make in India' initiative. Godrej Appliances, was a proud partner of the world's largest vaccine programme through its advanced range of medical refrigeration solutions that ensured that the vaccines were stored at optimum temperatures, even when administered at the remote locations. Two kinds of refrigeration solutions were involved. The first variant was able to preserve the highly temperature sensitive Covaxin and CoviShield vaccines within precise temperature ranges of 2 - 8°C. In addition to these, medical freezers with cooling capabilities of around -20°C were also deployed to store the diluents and ice packs that were needed to ensure consistent temperatures in the last mile delivery, as temperature fluctuations exposed these vaccines to the risk of getting damaged.

Godrej Appliances also added ultra-low temperature freezers which have been supplied to support WHO, UNICEF and others. Targeted at strengthening the global cold chain, these freezers were suitable for the

mRNA-based vaccines that were administered by many other countries. The mRNA-based COVID-19 vaccines were also extremely temperature-sensitive and needed to be stored at very cold temperatures.

The ultra-low temperature freezer uses unique plate heat exchanger technology and back-up systems based on liquid CO₂ or NO₂ to ensure temperature stability and maintainability over a long duration of 48 hours, making it ideal for medical refrigeration situations in countries where basic or supplementary medical infrastructure is lacking.

50,000+

vaccine related products/units sold in last 5 years

48 countries

28 + 8 states and union territories in India

Product Stewardship

Product stewardship forms a key aspect of our 'good and green' vision for product development. It converges with the consumer's preference for an ethical manufacturer and also keeps sight of the product's impact across the value chain. Our LCA based approach also focuses on the consumer's end initiatives to ensure usage, maintenance and disposal of every product. We provide information on how to take care of the products to help give them a longer lifespan. This information guides the customers in the optimal usage but also helps them understand minute details, like care for the raw material, logistics and more. We also maintain responsibility for the product even after it has been handed over to the customer through warranties and service agreements, especially for the critical components. Our service team helps the clients in maintaining their products through optional AMCs (Annual maintenance contract) within and beyond the warranty period life extension services like, re-painting, refurbishing, etc are also made available to increase the longevity of products. Protection of Environment is one of the core



values of the company & we seek active co-operation and participation of our customers to make sure that our product, packaging and plastic material is not disposed as unsorted municipal waste. The company has taken aggressive EPR targets and has established processes for management of E-waste and plastic waste across its value chain. The updated list of authorized recyclers is published on our website.

At Godrej & Boyce, all our businesses assess the lifecycle impact right from the design & planning stage.

LCA helps us in institutionalizing environment friendly and sustainable processes and minimizing impact across the value chain

Embedding sustainability into product value chain



PRODUCTS	<ul style="list-style-type: none"> • Refrigerators: (BEE-certified; 3 star ratings and above) • Air conditioners: (BEE-certified; 3 star ratings and above) • Washers: 5-star ratings for all SKUs • Freezer chests: (BEE-certified; 3 star ratings and above)
DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY	<ul style="list-style-type: none"> • First to introduce hydrocarbon refrigerants with zero ODP and least GWP • Compressors compatible with greener refrigerants like R600a and R 290 • AC design uses evaporative cooling coupled with greener refrigerant to cut environmental impact by ~ 75%.
ECO-FRIENDLY PACKAGING	<ul style="list-style-type: none"> • Transitioned all appliances from Expanded Polystyrene (EPS) packaging to eco-friendly paper honeycomb solutions.
END OF LIFE MANAGEMENT (DISPOSAL/ RECYCLING)	<ul style="list-style-type: none"> • Godrej Recycling Policy applies whereby Godrej sends authorised recycler/ company agent to customer premises to facilitate safe recycling.
CUSTOMER HEALTH & SAFETY CONSIDERATION	<ul style="list-style-type: none"> • Tested as per standards made by Bureau of Indian Standards.



PRODUCTS	<ul style="list-style-type: none"> • Furniture for office and residential use (Conforming to National & International sustainability standards)
DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY	<p>Use of E1 grade boards with low volatile organic compounds (VOC) emissions</p> <ul style="list-style-type: none"> • Use of low VOC adhesives, PEFC-certified boards and lead-free powders • Green Assurance Label implemented • Implementation of Design for environment (DFE) policy • Compliant to BIFMA performance and sustainability standards
ECO-FRIENDLY PACKAGING	<ul style="list-style-type: none"> • Phase out of multi-layered and EPS packaging with use of greener packaging alternatives.
IMPACT ON LOGISTICS AND TRANSPORTATION	<ul style="list-style-type: none"> • Logistics reduced through knockdown flat pack product design.
REDUCTION OF IMPACT IN USE PHASE	<ul style="list-style-type: none"> • Furniture care pamphlets educate new buyers on product maintenance. product demos, post installation videos available on the website. • AMCs provide product life extension services like refurbishing, painting, upholstering, maintenance.
END OF LIFE MANAGEMENT (DISPOSAL/ RECYCLING)	<ul style="list-style-type: none"> • Runs the WECYCLE recycling programme for all its retired office furniture products. Whatever is collected is meticulously processed, and broken down, becoming inputs for other products.
CUSTOMER HEALTH AND SAFETY CONSIDERATION	<ul style="list-style-type: none"> • Ergonomic design



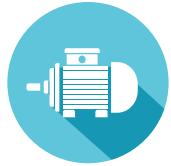
Godrej
Locking
Solutions &
Systems

PRODUCTS	<ul style="list-style-type: none"> • Padlock, towerbolt, door handle, multilock, universal furniture lock
DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY	<ul style="list-style-type: none"> • Smart design, lighter weight and easy installation due to optimal material use. Zero hazardous materials used. Surfaces of input materials coated / plated to be hardy and last longer.
ECO-FRIENDLY PACKAGING	<ul style="list-style-type: none"> • To promote greater biodegradability and strength BOPP lamination on carton done away with multi colour printing changed to single colour. • Multi-ply corrugated board used as insert instead of plastic. • Polybag of > 50 micron thickness used for packing, to ensure recyclability. • Design of shippers boxes optimised and 3-ply corrugated board used. • Recyclable packaging, Kraft/duplex paper-based.
IMPACT ON LOGISTICS AND TRANSPORTATION	<ul style="list-style-type: none"> • Reduction in total weight of products due to redesign and use of alternate material. Easier to move and transport.
END OF LIFE MANAGEMENT (DISPOSAL/ RECYCLING)	<ul style="list-style-type: none"> • Handles made of single material, aiding recyclability. • Product design supports easy disassembly, segregation and recycling. • Digital products are soldered using RoHS compliant solders. For circuit boards and batteries, product disposal directions are indicated on user manuals.
CUSTOMER HEALTH AND SAFETY CONSIDERATION	<ul style="list-style-type: none"> • Product design ensures there are no sharp edges, promoting easier use.



Godrej
Security
Solutions

PRODUCTS	<ul style="list-style-type: none"> • Strong room door • Safes • Home locker
DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY	<ul style="list-style-type: none"> • All products designed to have a productive life > 50 years. • Use of high strength concrete instead of aluminium-based barrier, leading to substantial reduction in embodied energy. • Reduction in material consumption. • Zero toxic emissions during manufacturing, use and disposal.
ECO-FRIENDLY PACKAGING	<ul style="list-style-type: none"> • Thermocol totally eliminated and only NPCB approved plastic bags used.
END OF LIFE MANAGEMENT (DISPOSAL/ RECYCLING)	<ul style="list-style-type: none"> • Authorised recycler details for end-of-life disposal provided in product manuals.
CUSTOMER HEALTH AND SAFETY CONSIDERATION	<ul style="list-style-type: none"> • No hazardous material used. • All safety practices followed during manufacturing, delivery and commissioning. • Products are designed for high stability.



Godrej Lawkim Motors

PRODUCTS

- **Mini induction motor**
- **Hermetic Compressor** motors
- **BLDC Motor**
- **Motor for off-road E-Vehicle**
- **Servo motors component**
- **Efficient Transport cooling motors** component / Generator equipment critical component
- **IE3 motors** up to 40HP/ Motors

DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY

- Uses **lesser material**
- **Lower energy** consumption
- **No toxic materials** used
- **Exceeds design life of product** by 1.5 times

ECO-FRIENDLY PACKAGING

- **Use of 100% recyclable packing** material
- **Wood packaging** eliminated

END OF LIFE MANAGEMENT (DISPOSAL/ RECYCLING)

- End of use management and disposal responsibilities lies with **OEMs who are our end customers.**

CUSTOMER HEALTH AND SAFETY CONSIDERATION

- **Thermal protection** is a product feature – a method of motor protection that is activated when a motor operating at the rated voltage locks up for some reason with the power still being supplied.
- **Insulation strength to ensure earth leakage** needs as per IS302



Godrej Electricals & Electronics

PRODUCTS

- **ControlAiR IFC** (Intelligent Flow Control System)

DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY

- **4-20% energy savings** in compressed air system
- **No hazardous materials** used

CUSTOMER HEALTH AND SAFETY CONSIDERATION

- **All safety practices** followed during manufacturing, delivery and commissioning

PRODUCTS

- **Vending Machines**
- **Minibar Instant**
- **Minibar Soup**
- **Minibar Espresso**
- **Minibar Chocolate**



Godrej Vending

DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY

- **Restriction of hazardous substances** in electrical and electronic parts compliant

REDUCTION OF IMPACT IN USE PHASE

- **Low power & energy** efficient control system
- Automatically goes to **energy saving mode** if not used for one hour



MoveUp desk by Godrej Interio focusses on well-being of users

PRODUCTS

• **Electric forklifts**



**Godrej
Material
Handling**

DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY

Several energy-saving features:

- All AC & Twin Motor Drive
- All AC motors
- One hydraulic motor, instead of 2 used in conventional lifts
- Drive and hydraulic motors are both AC (brushless and more efficient than conventional forklift with DC motors)
- Use of LED lights

REDUCTION OF IMPACT IN USE PHASE

- Zero Emissions in use phase, no impact on user and the environment

PRODUCTS

- IGBC Platinum rated building
- AAC Blocks
- Recycled Concrete Material



**Godrej
Construction**

DESIGNED FOR LOW ENVIRONMENTAL IMPACT AND PRODUCT DURABILITY

- Use of Green Concrete
- Use of less virgin material and more recycled material like fly ash, gypsum, recycled concrete, 100% natural sand, free from silt.
- Use of 100% renewable energy for running operations

REDUCTION OF IMPACT IN USE PHASE

- High porosity allows water from precipitation or other sources to percolate through the flooring
- The thermal insulation characteristics contribute to a cooler interior environment leading to savings in air conditioning.
- Platinum ratings under LEED (Core & Shell), as well as platinum ratings under IGBC health and well-being.

Using lifecycle assessment for a more holistic sustainability approach

Lifecycle assessment (LCA) measures the environmental impacts of the many interacting systems that make up industrial production. For us, the impetus for getting LCAs done, across business segments, have been very diverse. Making our products more and more environmentally friendly and sustainable is a long-term objective for us, and this process involves getting our products evaluated by certifying agencies. LCAs are an essential part of this journey as they provide a view into multiple facets of environmental impact and thus, uncover ways of modifying/mitigating such impact. By virtue of quantifying the impact at different stages of a product's lifecycle, the LCA also forces innovation at every stage of the lifecycle leading to more targeted value engineering, more holistic and frugal design philosophies, recyclable packaging solutions, smarter logistics design and

so on. More integrated and optimised production is a consequence, leading to cost efficiencies and more differentiated products that answer to society's needs for more responsible products.

LCAs have triggered product improvements in several ways:

Our Construction business has gained significant first mover advantage from its green concrete and sustainable construction offerings.

Our locks business has reduced product weight by

21%

also switching to single material use wherever feasible with benefits across packaging, logistics and recyclability.



Fridge Medical Freezer ACs, Compressor Washer Chest freezer

37

LCAs completed



Safes Coffers

5

LCAs completed



Locks Door Closer Product Packaging

3

LCAs completed



Chairs Workstations Furniture Storage Units

31

LCAs completed



Recycled Concrete Block (RCB) Aerated Autoclaved Concrete (AAC) block Ready Mix Concrete (RMC)

3

LCAs completed

At Godrej & Boyce, over this reporting period,

79 LCAs

have been completed across different business units.



Environmentally responsible alternatives to traditional brick manufactured by Godrej Construction

GODREJ CONSTRUCTION: BRINGING CIRCULARITY INTO CONSTRUCTION MATERIALS

SDGs impacted



The TUFF range of concrete blocks and pavers manufactured by Godrej Construction is entirely made from recycled construction and demolition (C&D) waste. The company has tieups with builders, developers, contractors and government institutions for sourcing construction waste that can be used as raw material. The collected C&D waste is then turned into Recycled Concrete Materials (RCM) at our factory in Vikhroli. The specifications, strength and other characteristics of the TUFF range of products is equivalent to those made from virgin materials, with parameters like water absorption, abrasion resistance engineered to comply with the norm prescribed in Indian codes and standards. RCM significantly reduces environmental footprint in two primary ways:

- By lowering the quantity of stone aggregates mined from quarries and used as raw material
- Reducing the tonnage of C&D waste dumped into landfills
- The resultant environmental impact is significant.

5000 liters of water conserved and 900 kgs of CO2 emissions reduced per ton of concrete recycled

TUFF products are fast gaining acceptance as environmental norms get tighter for the realty sector, and more builders adopt sustainable building techniques. Godrej Construction is also exploring newer product ideas for using RCM, while the existing TUFF range finds newer applications. For instance, they are being used as Tetrapods and Accropodes, which act as wave-breakers along seashores and coastal roads, helping to prevent coastal erosion and dissipate the ferocity of tidal waves and storms.

GODREJ LAWKIM MOTORS: A GREEN MAKEOVER TO MOTORS THROUGH E-SWITCH TECHNOLOGY

SDGs impacted



At the heart of most energy-efficient brands of home refrigerators, commercial ACs and other special applications in factories is an energy-efficient motor. Godrej Lawkim Motors, which is a leading manufacturer of specialised motors and motor components, has introduced the electronic switch (e-switch) technology for the first time in India. The e-switch technology will replace the conventional Open Circuit Switch and Centrifugal Gear Assembly in single phase motors enabling seamless switchover of start windings. The key benefit of this technology is the elimination of moving

parts, and also the complete avoidance of any kind of hazardous materials. This makes these motors easily maintainable and user friendly.

The e-switch technology is fairly common in developed countries, as the new motors are more environment-friendly. In India, Godrej Lawkim Motors has indigenously developed the technology and it is expected to benefit several sectors that use general purpose motors like agriculture, food, dairy, domestic and construction.

Enabling life extension of the Motor beyond 15 years of service life, more than any Indian Motor in the category

The company views national and international standards as a roadmap to stay in tune with emerging trends in the world and attain higher design, performance and sustainability goals. BEE Star rating, UL Greenguard, SCS Indoor Advantage, CII GreenPro, BIFMA level, IGBC green building rating, GRIHA are the key Sustainability and design related third party certifications pursued by G&B which assures the customers about product performance and its environmental accomplishment.

650+
IGBC Green building
rating projects

320+ Mn. sqft.
area covered by projects
supported by GBCS



240 BEE Star Rating
(3 star & above)



94 GREENPRO



72 SCS indoor advantage



18 BIFMA level



37 GRIHA



67 UL greenguard



97 Patents across businesses

Marketing and labelling practices followed

Labelling requirements for packaged commodities in India are governed under the Legal Metrology Act, 2009 and the Legal Metrology (Packaged Commodities) Rules, 2011. Labelling of food products are governed under the Food Safety and Standards Act, 2006, and the Food Safety and Standards (Packaging and Labelling) Regulations, 2011. There are different

labelling protocols for retail and wholesale consignments. All our businesses follow industry-relevant labelling standards, communicating information pertaining to how to use, product constituents, energy ratings and units consumed (as applicable), product applications, safe usage practices, quality ratings and recycling information.

COMMUNICATION & LABELLING NORMS

Godrej Appliances

Products are affixed with BEE Energy Star Rating label. The label indicates BEE star rating of appliances number of units of consumption per year, model number, gross volume, refrigerant details etc. The BEE star rating enables consumer to make an informed choice about the energy saving.

Godrej Electricals & Electronics

Packaging often communicates green features of the product like extent of energy savings. Further, product related descriptions, specifications in terms of pressure & flow, electric supply, company's contact details. Safety instructions relating to installation and operations, warnings related to high pressure, electricity, shock risk, tower lamp installation guidance, piping modification guidance etc. are all provided.

Godrej Lawkim Motors

Motor nameplate displays ISI mark, efficiency rating of motor (IE1/ IE2/ IE3/ IE4), efficiency percentage, apart from standard parameters.

Godrej Construction

The packaging for products like mortar, ready-mix plaster, ready-mix concrete (RMC) carry instructions on how to use, surface preparation, application of the mix, curing and storage, as relevant.

Godrej Interio

Packaging carries recyclability details, instructions for storage and safe handling. Labelling includes manufacturer details, customer care cell details etc. The 'Green Assured' Logo is displayed on Godrej Interio's 'GreenPro' certified home furniture products to create awareness amongst customers about green features of products

Godrej Material Handling

Battery safety compliance sticker highlighting do's and don'ts for traction battery; different signages put on forklifts for safe handling.

Godrej Prima

Packaging cartons carry standard information like manufacturer's details, customer care cell details, safe handling and storage instructions. Product sticker highlights CE marking as eligible, refrigerant type, operating specifications like voltage, current, pressure, frequency, logos of grounding (earthing) category, power connection polarities etc. The packaging laminate used for vending premises displays plastic packaging details, FSSAI License Number, FSSAI logo, nutritional information, ISO declaration and other standard information.

Godrej Locks & Architectural Fittings & Systems

Packaging carries Product Specifications, product features, mention of green manufacturing process, and recyclable packaging. Labelling includes Product details, content details, manufacturer details, customer care cell details etc.