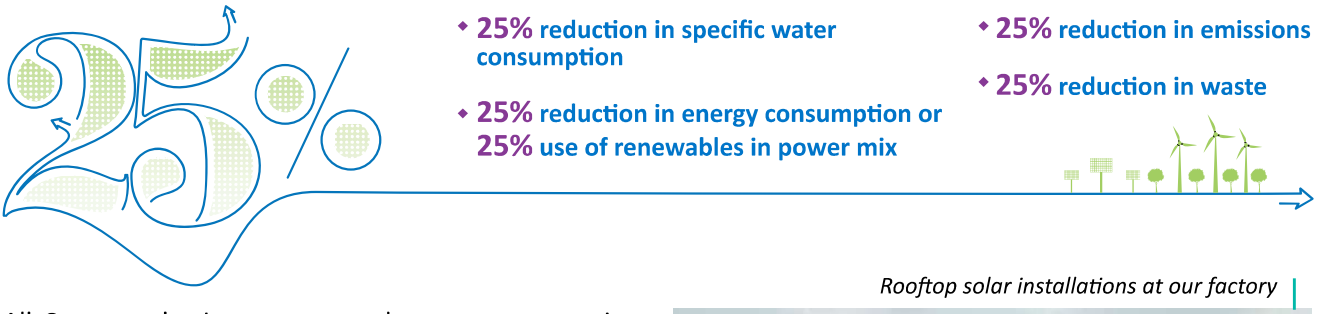
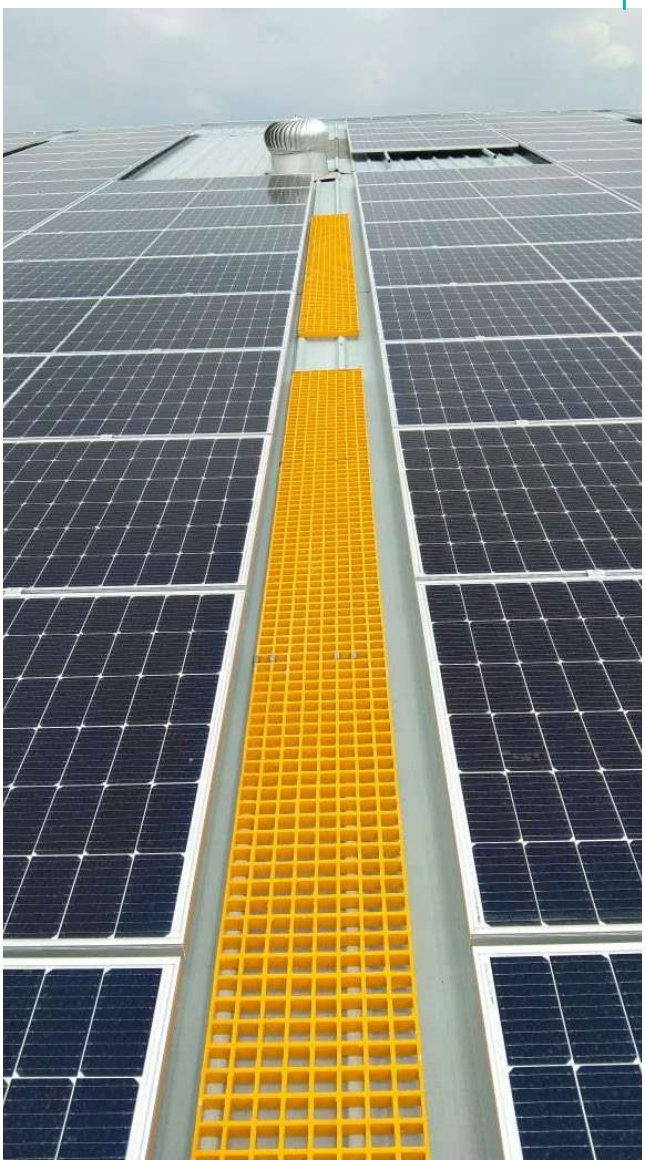
TOWARD SUSTAINABILITY

Last year, we put down our Sustainability Policy. It was a clear recognition of the Company's maturity towards responsible manufacturing practices for the future. This year the Policy has been made operational through the declaration of Sustainability Goals for 2025 (change from current levels).



All Company businesses pursued energy conservation efforts during the year with focus and dedication. The energy conservation measures undertaken were mostly in the nature of identifying and optimising the power consumption in various power-intensive equipment, modifying the manufacturing process, replacing it with efficient energy-conserving equipment, enhancing cycle time and sourcing alternate fuels. The Company achieved efficiency improvements in furnace operations, commissioned solar power units at various factory locations, and achieved fuel savings through automation and heat recovery, besides making improvements in combustion efficiency and specific fuel consumption. The above energy-saving measures implemented across divisions are expected to benefit the Company by lowering costs and emission levels. Further, energy saving was also achieved by prudent sourcing of power from the exchanges.

Rooftop solar installations at our factory



Efforts made toward technology absorption, adaptation, and innovation

Aligning with the overall strategy under the technology pillar, the development of high-performance, innovative and exciting products continued to be the main focus.

The Abrasives Business developed Stearate Coated paper-based Abrasive products, Latex Micro fine-grit Waterproof paper for the Auto After market, a new curing process for precision Coated Abrasives, Quasi Hot-pressed wheels, and various types of bonds that enable low-temperature firing. Newer bond systems to suit larger diameter cutting wheels, Lithium Alumino Silicate-based Vitrified bond system for high precision grinding, high-performance binder system for Unitised

Discs and Wheels, and Vitrified CBN Bond for low-temperature firing were also developed.

The Electrominerals business established processes for manufacturing synthetic alumina-based Brown Fused Alumina, high purity Silicon Carbide, and Silicon Nitride. Improved processes to yield three higher-order variants of Graphene and high-performance sol-gel ceramic alumina Abrasive applications were also developed.

The Ceramics Business entered into collaborative research with NALCSIR, to develop the tape casting process for dense Alumina (CUMITUFF 996) & zirconia (8YSZ) films for use in the hydrogen fuel cells. The business also developed a metallisation process on Alumina substrates using Magnetron Sputtering techniques for MIC fabrication in collaboration with ISRO Ahmedabad.

The Refractories and Composites Businesses developed advanced solutions involving feeder expendables for glass industry applications, high-strength thin NbSiC kiln furniture, integrating ceramic parts with fibre reinforced polymers (FRP) composites, carbon fibre parts for aerospace applications, composite-based rebars, anti-skid floorings, and pultrusion based structural products for defence applications. The business deployed wear-resistant composite technology to various applications, including fluid handling and non-corrosive structural parts for flue gas desulphurisation units.

Initiatives taken by the organisation toward carbon emissions, plastic reduction, and sustainability

The sustainability measures undertaken were mostly in the nature of identifying and optimising the power consumption in various power-intensive equipment, modifying the manufacturing process, replacing with efficient energy-conserving equipment, enhancing cycle time, and sourcing alternate fuels. The following are some of the initiatives undertaken during the last three years:

- Efficiency improvements in furnace operations
- Commissioned solar power units at various factory locations. In the previous years, about 1.5 MWp of solar capacity was installed. The energy generation was equivalent to 214 MT of carbon dioxide saved and 6375 trees planted
- Achieved fuel savings through automation and heat recovery besides making improvements in combustion efficiency and specific fuel consumption
- A Capex program was implemented to convert existing liquid fuel run furnaces to a cleaner and low-emitting Natural gas. The sulphur emission was reduced from 3% to 10 ppm. Natural gas is supplied through pipelines, eliminating the transportation of liquid fuel in trucks resulting in fossil fuel conservation and reduction in carbon footprint

The Occupational Health Center at the Industrial Ceramics factory, Hosur, is constructed entirely using Coated Abrasives trim waste

The Gail-LNG line at the Industrial Ceramics factory, Hosur