



Extending our value chain for future-ready products

We are a global leader in large-scale production of advanced materials, leveraging innovative technology for the downstream transformation of a portion of our carbon output, petrochemicals, and other raw materials.

With facilities in Europe and North America, the Advanced Materials segment manufactures raw materials for cleaner, lighter, and more environmentally friendly 21st-century applications in the specialty chemicals, coatings, construction, petroleum, energy storage and other global industries.

0.31 mn MT
Sales volume

₹39,362 Mn
Revenue

3%
Operating margin

19%
Contribution to consolidated revenue



Business strength

We are a global leader in the advanced materials industry, with a strong commitment to sustainability. Our product portfolio consists of high-value, eco-friendly materials that serve multiple growing industries, including specialty chemicals, coatings, construction, automotive, and energy storage. We are known for our innovation and leadership in the industry, and constantly strive to improve our manufacturing processes and increase production capabilities. Our focus on the growing advanced materials sector positions us for continued success in the future.



Our advanced material products



Engineered products



Chemical intermediates



Resins

	Engineered products	Chemical intermediates	Resins
Raw materials used	Coal tar pitch and petroleum tar	Naphthalene oil, crude benzene and cracker residues	Carbo-indene C9 feedstock
Manufacturing process	Pitch and cracker residues manufactured from a highly reduced concentration of PAHs.	Produced from our internal production process of naphthalene oil, which is further processed into downstream products such as phthalic anhydride, that serve as key raw materials in various industries. Distillation of crude benzene	Downstream refining of naphthalene and other inputs
Finished products	CARBORES® PETRORES® LiONCOAT® Sealer coatings	Refined naphthalene Phthalic anhydride Modifiers Benzene Toluene Xylene Solvents Fuel additives	Carbon resins Hydrogenated resins Hydrogenated hydrocarbon resins Phenolics
Production locations	Belgium, Canada, Germany and Poland	Belgium and Germany	Germany

Key highlights of CY22

Our advanced resins have seen strong interest and acceptance from customers. With three out of four European HHCR competitors shut down and the potential for a supply vacuum in Europe due to COVID's impact on Chinese exports, there is opportunity for our Company to fill the demand once economic conditions improve – especially for European customers desiring a local supplier with shorter logistics.

Elsewhere, demand for our PETRORES® and LiONCOAT® specialty coatings for energy storage continues to expand, as these products are important materials in lithium-ion batteries for electric vehicles.

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Operating landscape

In CY22, the escalation of energy costs and tight supplies of natural gas in Europe were the key concerns for the Advanced Materials segment. Consequently, they impacted our operations and that of other players in the regional manufacturing sector. The ongoing energy issues are anticipated to persist in the near term and may impact operations of energy-intensive industry customers and, subsequently, demand for some of our products.

Our response

While our advanced materials plants are energy intensive, we were able to hedge a portion of our European gas requirements. Moreover, we have the ability to substitute roughly half of our gas requirements in Germany and Belgium with non-gas alternatives, such as petroleum-derived fuels.

To prepare for the potential worsening of the energy situation, we have conducted a thorough analysis of the energy-intensity of each production unit at our European plants. That said, we are committed to returning to full operations when the situation improves.





Way forward

Over the past five years, we have invested heavily in developing a strong product portfolio in our Advanced Materials business. In CY23, our focus will be on strengthening cash flow. We also want to leverage the strong demand of our engineered products, such as PETRORES®, CARBORES® and LP Sealer Base.



Advanced Materials upcycling value chain

Fractions from our coal tar distillation as well as carbon-rich feedstocks procured from third parties are further processed to produce a range of advanced materials products for various industries and downstream applications.

