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Q. On a broad basis, how do you see the engineering polymers business evolve in the next 3 - 5 years?

There is an ongoing trend in the automotive sector for light-weight vehicles to reduce their carbon footprint. Here, engineering polymer compounds offer a good solution to increase the efficiency of vehicles. Moreover, in the electrical sector, the usage of engineering compounds helps in providing properties that reduce short circuits, improve light scattering ability, enhance recyclability and increase durability as compared to other materials. The engineering polymers business will experience significant advancements and changes in the next 3 - 5 years, driven by sustainability goals, technological innovation, market expansion and economic factors. Companies that adapt to these trends and invest in research and development will be well-positioned to thrive in this evolving landscape.

The engineering polymers business is expected to grow at a CAGR of ~6.8% in the next 5 years.

Q. What does the wire and cable business mean to your products? What value-adds do you offer them?

The wire and cable market is highly diversified by application and technical requirements. Compounders also must design innovative materials with differentiated solutions while addressing evolving trends and regulations including digitalisation, electrification, sustainability and safety.

APAR's cable division has been steadily growing at over 23% CAGR for the last ten years. This is made possible by our extensive investments in equipment (we are the

Companies that strategically invest in research and development, technological innovation and sustainability initiatives are well-positioned to capitalise on the increasing global demand for polymer compounds. Embracing these strategies will enable them to navigate market complexities and leverage emerging opportunities effectively.

Exploring the Future of Polymer Compounds

Evolving Trends and Opportunities Across Industries

“Polymer compounds are increasingly vital across diverse growing industries, including their applications in automotive components, electrical equipment, wire and cable insulation, and various household items. They offer solutions for enhancing efficiency, durability and sustainability, positioning them as crucial materials for future technological advancements,” opines Kamal Sharma, in dialogue with POLYMERS Communiqué.

only Indian company with four e-beam facilities), innovation and wide product range. As a highly reputed supplier, we cater to various speciality sectors like railway locomotives, coaches, naval ships and submarines, solar and windmills, hybrid cables and harnesses, telecommunication and general purpose LV, MV XLPE cables as well as fixed and flexible wires and cables. We also provide specialist technical services, cable design and other value-added services gained from our extensive experience over the years.

The wire and cable business is a crucial market for engineering polymers, with significant opportunities for providing value-added solutions. By offering enhanced performance, durability, flexibility, safety and innovative options, engineering polymers meet the evolving needs of this sector, driving growth and development in various applications.

Companies that focus on advancing polymer technology and addressing industry-specific challenges will be well-positioned to support and grow with the wire and cable market.

Q. What investments does APAR plan in the coming times to stay ahead of the curve?

APAR has made substantial investments in setting up state-of-the-art testing facility, which will help validate its products in-house and gain the confidence of its customers. We have also invested in new fully automated machines to help increase our monthly production capacity and provide uniform material quality.

By strategically investing in R&D, technological innovation, sustainability initiatives, market expansion, product diversification, digital transformation, training, quality and customer-centric

solutions, APAR can maintain its competitive edge and continue to lead in the engineering polymers market. These investments will enable the company to adapt to market changes, meet customer demands, and drive long-term growth and success.

Q. Please share your thoughts on the industry projections for the compounding business in India.

Polymer compounding is a crucial process where various polymers are blended with additives to enhance their properties, creating materials customised for specific applications. This process plays a vital role in producing materials that meet the varied needs of industries such as automotive, construction, electronics and packaging. The industry has seen growing interest and demand for advanced polymer materials to be cost-effective and still continuing to meet the performance requirements.

With the world moving towards eco-friendly products that also can meet the performance standards set by the OEMs, polymer compounds are surely the future for industries with stringent regulations, such as the automotive and cable industries.

Today, polymer compounds are also being heavily used in the construction industry for uPVC windows, roofing sheets etc. With growing demand from other developing countries and the extensive infrastructure development planned in India, the consumption of polymer compounds is set to rise substantially.

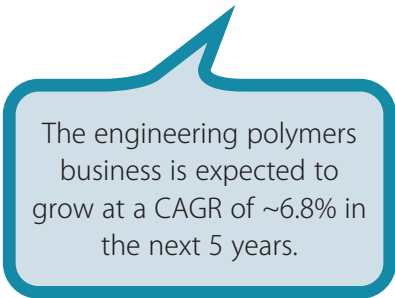
Thus, the compounding business in India is set for robust growth, supported by rising demand across various industries, technological advancements and sustainability initiatives. Companies that invest in innovation, technology and sustainable practices will be well-positioned to capitalise on the opportunities in this dynamic market.

Q. How do you see global markets as an opportunity for compound manufacturers?

As the world becomes more aware of taking measures for the reduction of plastics waste, the industry is focusing on the development of recyclable and biodegradable composite plastics. The demand for polymer compounds in global markets is increasing not only in the automotive or electrical industries, but we also see a surge in consumer goods such as in the production of sports equipment, toys and stationary items.

With more and more countries focusing on becoming a manufacturing hub, raw material suppliers have huge growth potential in Middle Eastern countries, Southeast Asian countries like Vietnam, Australia etc.

Therefore, global markets offer immense opportunities for compound manufacturers. By leveraging rising demand in key sectors, adopting



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technological advancements, focusing on sustainability, expanding geographically, forming strategic partnerships and offering specialised solutions, compound manufacturers can tap into these opportunities and achieve significant growth. The key to success will be continuous innovation, adaptability and a customer-centric approach.

Q. Your vision of the EV landscape in India and the impact for your business.

Indian consumers have accepted EV vehicles in the two-wheeler segment very well, and gradually, the EV consumption in the four-wheeler segment is also increasing. Once we have a good infrastructure setup for EV vehicles in terms of charging stations etc., the growth of EV vehicle consumption is inevitable. Several state governments have introduced EV-specific policies, intending to provide both supply-side and demand-side incentives to attract investments and generate employment in their respective states.

The polymer compound business is bound to grow with the growth of EV vehicles in India as polymer compounds offer a good solution to increase the efficiency of vehicles and reduce the weight of the vehicle as well. Temperature-resistant and thermally conductive polymers are well suited to heat-sensitive applications, including electric vehicle battery parts and enclosures. Moving from internal combustion engines to batteries opens up new opportunities for polymers. Operating temperatures are reduced, but flame-retardant properties remain critical. Engineering polymers

are flame-retardants with electric isolation, thermal conductivity and cooling compatibility.

The evolving EV landscape in India offers significant opportunities for the compounding and engineering polymers business. By focusing on light weighting, thermal management, component manufacturing, sustainability and technological innovation, companies can position themselves as key players in the growing EV market. Strategic investments in R&D, collaborations with industry stakeholders and a customer-centric approach will be crucial for capturing the benefits of this transformative shift in the automotive industry.

Q. Houseware and appliances continue to be on a growth path. Your message to this industry on leveraging this opportunity.

Polymer compounds are widely used in the production of various household items due to their versatility, durability and cost-effectiveness. The houseware and appliances industry has already been one of the early accepting industries for polymer compounds. Polymer compounds support them by providing materials that give the aesthetic looks combined with durability and sustainability. Polymer compounds offer soft touch, anti-scratch properties, abrasion resistance, easy colouration and food safety-approved material. Manufacturers of household appliances are getting a chance to make a difference in the day-to-day life of the population by providing a quality product that not only meets aesthetic requirements, but also provides functional stability to the product and is safe from hazardous chemicals.

We would like to take this opportunity to inform everyone that APAR plans to introduce bio-based TPE which will help us maintain the usual performance, while also reduce the product's carbon footprint.

By embracing innovation, focusing on quality and durability, prioritising design and customisation, committing to sustainability, enhancing customer engagement and expanding global market reach, the houseware and appliances industry can effectively leverage its growth opportunities. Embracing these strategies will not only meet current consumer demands, but also position companies for sustained success in a competitive marketplace.

Q. Living in this VUCA world, what challenges are compound manufacturers facing today?

Volatility, uncertainty, complexity and ambiguity are part of the world we operate in right now.

APAR has been in business for over 60 years which gives us the financial support to sustain ourselves in the uncertain market. We have faced challenges due to increasing shipping freight costs and fluctuating raw material

costs; however, our market experience and ability to adapt to changing circumstances have enabled us to sustain in the market.

In navigating these challenges, compound manufacturers must adopt a proactive approach, focusing on innovation, sustainability, operational efficiency and strategic partnerships. Embracing digital transformation, investing in R&D, ensuring regulatory compliance and fostering a resilient supply chain are essential to thrive in the VUCA world and capitalise on emerging opportunities.

Q. What impact can EPR bring to our industry? Where are we today?

The obligations of EPR (extended producer responsibility) will vary around the world, but its principal impact is that businesses will be required to bear associated lifecycle costs depending on the type of product they produce. These costs will likely include the collection,

transportation, treatment and disposal of products.

As polymer is recyclable in nature, we reuse the material multiple times by melting and re-granulating it. Although the properties may vary accordingly, the material can also be used in various applications. Government regulations and subsidies will help us export such regrind material to other countries where it can be reused.

EPR has the potential to drive significant positive change in the compounding and engineering polymers industry by promoting sustainability, regulatory compliance and market opportunities. While there are challenges to overcome, the industry is gradually moving towards more responsible production and waste management practices. Companies that embrace EPR proactively can gain a competitive edge, foster innovation and contribute to a more sustainable future. ■

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