

HI-GREEN CARBON

SETTING INDUSTRY BENCHMARKS THROUGH ITS 'NEGATIVE CARBON FOOTPRINT' MANUFACTURING PRACTICES



Amit Bhalodi,
Director

With India emerging as one of the largest automobile markets in the world, we are witnessing a heightened demand for carbon black due to the variety of applications it is used in such as tires, UV stabilizers, belts, hoses, and much more. Adding on to this is the rapid infrastructure development and expansion of manufacturing sector, especially the electronics and plastics, which has further driving the market growth. As per IMARC Group's recent study, the Indian carbon black market which stood at \$86.8 billion in 2023 is expected to be worth \$177.6 billion by 2032, growing at a CAGR of 8.03 percent during the forecast period. However, the growing environmental concerns have forced many industries to transition towards sustainable alternative, i.e. recovered Carbon Black (rCB). Successfully catering to this niche industry segment is Hi-Green Carbon.

A subsidiary of Radhe Group of Energy (a specialist in manufacturing energy efficient equipment), Hi-Green initially started its journey with a small plant; but after rigorous R&D, setup a 25 metric ton/day plant

and gradually scaled its production capacity. Today, as one of the leading manufacturers of rCB in India, the company boasts of operating a 100 metric ton/day plant in Bhilwara, which is currently one of the largest continuous plant in the world in terms of production capacity.

Energy Surplus Manufacturing Process

The Group's in-house R&D team serves as the pillar of strength for Hi-Green wherein it has developed a fully indigenous patented technology through which the company is able to extract industry grade rCB from waste tires, refine it and then upgrade it, making it suitable to be used in rubber, plastics and many other industries. Keeping in mind the diverse nature of various industries and their unique requirements, Hi-Green offers three grades of rCB - SS-330 (Pellet form), SS-550 (Micro Pellet form), and SH-665 (Powdered form). Additionally, the company uses the syngas produced during the manufacturing process as the primary energy source to operate its plant and manufacture sodium silicate glass from the extra heat generated during the process.

"With the recently installed on-premise solar power plant, we rely solely on the waste heat that is generated during the production process, devoid of any external energy sources. Along with zero solid & liquid discharge, every 1,000 MT of rCB that we produce reduces 2,000 MT of fossil fuel consumption and 2,500 MT of carbon emission", proudly says Amit Bhalodi, Director, Hi-Green Carbon.

For companies who wish to transition from virgin carbon to rCB, Hi-Green handholds them through

the entire process where it first gets a clear understanding of their process, the grade of carbon they're using, final product's composition and many other critical parameter. Post this, the Hi-Green team also guides them about the quantity of rCB needed for their process and changes that needs to be incorporated in their formulation & compounding, helping them immensely in reducing, or even completely stopping the usage of virgin carbon.



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The Way Forward

As a listed company with good access to financial resources and abundant raw material, Hi-Green plans to expand its operations by 3x in the next two years by installing two new plants - one each in Maharashtra (expected to be operation by September this year) and Madhya Pradesh. Additionally, plans are also in place to setup more manufacturing plants in other Indian states so that it can source raw material in those regions and sell the product there in the vicinity itself. 