Cabot Corporation Launches New Engineered Elastomer Composite (E2C™) Product to Expand Capabilities in On-road Commercial Tire and Industrial Rubber Applications

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First-ever E2C life cycle assessment demonstrates that E2C technology reduces greenhouse gas emissions

BOSTON--(BUSINESS WIRE)--Feb. 27, 2023-- Cabot Corporation (NYSE: CBT) today announced the launch of its new E2C™ DX9660 solution that is designed to deliver significantly increased rubber durability through high abrasion resistance. The new product provides a 30% increase in abrasion resistance compared to a conventional compound and further expands Cabot's portfolio of E2C solutions for use in a wide range of on-road commercial tire applications and industrial rubber products. Furthermore, Cabot has completed its first-ever life cycle assessment (LCA) of an E2C solution used in an on-road truck tire application.

Global demand for products that reduce environmental impact is driving tire and industrial rubber manufacturers to seek solutions that enable sustainability benefits throughout the lifecycle of their end-product. As such, the rubber industry is looking for opportunities to increase raw material efficiency, reduce downstream greenhouse gas (GHG) emissions and decrease end-of-life product waste. By maximizing the performance of the primary raw materials and delivering a pre-mixed composite to customers, E2C solutions drive significant reductions in net emissions from end products and can lower Scope 2 GHG emissions during the tire and rubber production process.

The newest solution in the E2C portfolio, DX9660 delivers high abrasion resistance and increased durability performance in on-road commercial vehicle tire treads and protective rubber liners for industrial equipment. This latest solution expands Cabot's current E2C product line for use in on-road commercial tire applications including long-haul, regional and intercity trucks and buses, commercial tire retreads, as well as protective rubber liners for industrial equipment. The DX9660 solution offers high levels of tread wear resistance without sacrificing rolling resistance. As such, this increased tread life leads to a reduction in end-of-life tire (EOLT) waste as well as a decrease in the net emissions from the tire manufacturing process.

The DX9660 complements Cabot's previously announced E2C™ DX9640 solution, which is designed to lower energy loss, a key driver of rolling resistance, while still delivering a high level of abrasion resistance. In a recent on-road tire test, DX9640 both lowered rolling resistance by more than 10% and increased tire tread durability by 12% compared to a conventional compound. Improved rolling resistance leads to a reduction in fuel consumption of vehicle fleets, resulting in lower GHG emissions, while increased tire tread life reduces EOLT waste.

With an ongoing commitment to deliver solutions that impart sustainability benefits, Cabot conducted a comprehensive LCA to examine the potential environmental impact of E2C solutions across the value chain of a long-haul truck tire. For the LCA, Cabot examined the potential reduction in net greenhouse gas emissions enabled by utilizing E2C technology in place of conventional compounds in commercial tire treads. According to the assessment, the E2C DX9640 solution can significantly reduce emissions and environmental impacts. Key findings include:

- Lower rolling resistance enabled by E2C solutions can improve vehicle fuel economy and results in up to 5% - 6% avoided GHG emissions.
- Greater durability of tires made with E2C solutions reduces EOLT tire volumes and decreases the net emissions from tire production required to outfit a truck over its total useful life by more than 10%.

"As we work toward a lower carbon future, it is critical that we collaborate with our tire and rubber customers to ensure they understand and take advantage of the sustainability benefits that E2C solutions can deliver in their end-use applications," said David Reynolds, vice president and general manager, Cabot Engineered Elastomer Composites. "We are committed to providing our customers with innovative solutions to help them improve the performance of their products as well as make measurable progress toward their sustainability targets and ambitions. Furthermore, we are proud that the expansion of our E2C portfolio aligns with our own 2025 sustainability goal that 100% of our new products have a sustainability benefit. Improving our collective sustainability performance and addressing the key sustainability challenges of today's world will help us in our efforts to reduce our environmental impact and enable a more sustainable future."

For more information about Cabot's E2C portfolio, visit cabotcorp.com/e2c.

ABOUT CABOT CORPORATION

Cabot Corporation (NYSE: CBT) is a global specialty chemicals and performance materials company headquartered in Boston, Massachusetts. The company is a leading provider of reinforcing carbons, specialty carbons, battery materials, engineered elastomer composites, inkjet colorants, masterbatches and conductive compounds, fumed metal oxides and aerogel. For more information on Cabot, please visit the company's website at cabotcorp.com.

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