



Progress beyond

Solvay launches new KetaSpire® PEEK for monolayer e-motor magnet wire insulation

Monolayer solution eliminates adhesion and sustainability constraints of conventional PEEK or enamel insulation processes

Alpharetta, Georgia (USA), May 23, 2023

Solvay, a global market leader in specialty materials, has announced the launch of [KetaSpire®](#) KT-857, a new polyetheretherketone (PEEK) extrusion compound designed especially for copper magnet wire insulation in electric motors. The development of the custom-engineered insulation material was driven by the move of OEMs towards higher density batteries and electric powertrains operating at 800V or above to address the range anxiety of consumers.

“Higher voltage e-motors typically require thicker magnet insulation up to 180 microns,” explains Brian Baleno, Head of Marketing, Automotive, at Solvay Materials. “In contrast to applying the insulation with a single PEEK extrusion layer, the polyimide process involves multiple application passes, which can potentially introduce defects that tend to magnify as the layers are added. On the other hand, one of the biggest challenges of standard PEEK extrusion is to obtain an adequate level of adhesion of the insulation to the copper magnet wire. Our KetaSpire® PEEK KT-857 technology eliminates both of these constraints.”

In addition to ensuring better adhesion in a faster and more cost-efficient monolayer process, Solvay’s new magnet wire PEEK insulation material also provides important sustainability benefits. The extrusion of a single insulation layer requires less energy, and in contrast to the enamel process there is no need for utilizing any volatile organic compounds. At the same time, KetaSpire® KT-857 PEEK results in a more uniform insulation layer.

KetaSpire® KT-857 complements the portfolio of Solvay’s dedicated high-performance [e-motor solutions](#), which also include [Ajedium™](#) PEEK film and [Xydar®](#) LCP for slot liners, [Amodel®](#) PPA and [Ryton®](#) PPS resins for high-voltage connectors, connection rings and busbars, and [Xencor™](#) long fiber thermoplastics for slot wedges.

Meet Solvay's expert team at Booth 42D52 in Hall 4.2 during CWIEME from May 23 to 24 in Berlin (Germany) to learn more.

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About Solvay

Solvay is a science company whose technologies bring benefits to many aspects of daily life. With more than 22,000 employees in 61 countries, Solvay bonds people, ideas and elements to reinvent progress. The Group seeks to create sustainable shared value for all, notably through its Solvay One Planet roadmap crafted around three pillars: protecting the climate, preserving resources and fostering a better life. The Group's innovative solutions contribute to safer, cleaner, and more sustainable products found in homes, food and consumer goods, planes, cars, batteries, smart devices, health care applications, water and air purification systems. Founded in 1863, Solvay today ranks among the world's top three companies for the vast majority of its activities and delivered net sales of €13.4 billion in 2022. Solvay is listed on Euronext Brussels and Paris (SOLB). Learn more at www.solvay.com.

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