

Siemens and DOMO Chemicals join forces to drive sustainability in the electrical industry

- **Siemens' first residual current circuit breaker with recycled materials and identical performance and quality**
- **High-performance TECHNYL® 4EARTH® composed of 50 percent recycled content, including chemically recycled PA6 from various post-industrial and post-consumer sources such as fibers and textile filaments, as well as glass reinforcement**
- **Material is also UL certified, guaranteeing its quality and safety standards**

Siemens Smart Infrastructure and DOMO Chemicals, a leading provider of sustainable polyamide solutions, today announced a significant milestone in their joint effort to promote sustainable practices in the electrical industry. DOMO Chemicals has successfully developed and validated a new, high-performance TECHNYL® 4EARTH® polyamide 6 (PA6) material to be used for Siemens applications, which incorporates recycled content and advanced flame-retardant technology.

Siemens will be using this material for electrical safety products for the first time. This groundbreaking TECHNYL® 4EARTH® material, specially developed by DOMO Chemicals, will enable Siemens to produce most of the covers and housings of the Siemens SENTRON 5SV3 residual current circuit breakers (RCCB), type A/AC, while offering the same performance and quality as conventional materials, which is a prerequisite for a safety product. RCCBs enhance electrical safety by quickly disconnecting power when they detect a current imbalance, preventing electric

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shocks and fires. They are essential in both residential and commercial electrical installations.

Composed of 50 percent recycled content, including chemically recycled PA6 from various post-industrial and post-consumer sources such as fibers and textile filaments, as well as glass reinforcement, the material significantly reduces the environmental impact of the manufacturing process without compromising performance or quality.

Siemens: Advancing circularity in electrical safety

“We want to lead the industry with smart and sustainable technology,” said Andreas Matthé, CEO of Electrical Products at Siemens Smart Infrastructure. “It’s our ‘new normal’ to deploy as much sustainable material as possible for each new product to support our customers in achieving both optimized operations and their environmental goals. We are delighted to promote circularity and responsible use of resources in the electrical and electronics industry together with our partner DOMO Chemicals”.

The SENTRON 5SV3 RCCBs, type A/AC, meet the criteria of the recently introduced Siemens EcoTech label. Besides using sustainable materials, the SENTRON RCCBs are designed to exceed the standard lifetime expectations set by IEC 61008-1. With an impressive 10,000 operating cycles, these devices offer superior mechanical and electrical life, ensuring reliable performance and longevity. With SENTRON 5SV RCCBs, type A/AC, functionality of existing applications can be enhanced effortlessly. The standardized accessory system allows for easy hardware upgrades, including auxiliary switches, undervoltage releases, and more. This unified system of function extensions ensures that machines and switchboards remain productive and cost-effective for longer periods.

Innovative recycled material meets latest industry standards

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TECHNYL® 4EARTH® C 52G1 V25 CR GY 2747 is used for most parts of the covers and housings of these RCCBs, which are produced in high quantities. The material is also UL certified, guaranteeing its quality and safety standards. The solution uses a phosphorous and halogen-free flame-retardant system. The PA6 compound offers excellent molding and electrical properties, ensuring optimal performance in demanding applications. The material can be easily customized to match specific color requirements, in this case, light grey.

“At DOMO Chemicals, our ambition is to support our customers in achieving a lower carbon footprint without compromising performance. We are thrilled to partner with Siemens to deliver innovative and sustainable solutions that meet the growing demand for environmentally friendly materials,” said Juha Jokinen, Chief Commercial Officer Engineered Materials at DOMO Chemicals. “With our TECHNYL®4EARTH®, we combine high performance with various CO₂ reduction targets. By leveraging our expertise in polyamide technology alongside Siemens’ strong sustainability focus, we aim to make a positive impact on the electrical industry, a dynamic and rapidly growing market.”

DOMO’s extensive sustainable portfolio for the E&E market

DOMO offers the broadest portfolio of sustainable polymers available on the market today. Its offering includes mechanically and chemically recycled solutions as well as mass balance certified options. These alternatives come with different levels of performance and environmental impact reduction and are offered based on the end customer's application needs.

Leveraging its extensive experience in flame-retardant and sustainable solutions, DOMO now provides unique sustainable alternatives to the E&E market, which combine minimized CO₂ impact, a substantial amount of recycled content, the ability to be colored, and laser markability, all achieved through various flame-retardant

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technologies. Safety remains paramount, as evidenced by the material's UL certification, which applies to both mechanical and chemical recycled alternatives.

DOMO Chemicals and Siemens Smart Infrastructure are committed to expanding the availability of this sustainable material to meet the global demand for sustainable solutions in the electrical and electronics industry, in line with changing consumer behavior. DOMO Chemicals' advanced recycling technology, coupled with its strong supplier network, enables the company to offer a wide range of sustainable polyamide solutions. The successful development of this flame-retardant PA6 compound demonstrates the potential of depolymerization as a promising technology for creating high-performance, environmentally friendly materials, supported by leading solution providers such as Siemens Smart Infrastructure.

This press release as well as further material are available [here](#).

For more information on Siemens Smart Infrastructure, please see [Siemens Smart Infrastructure](#).

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Joint Press Release by Siemens and DOMO

Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings, and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions, and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland. As of September 30, 2024, the business had around 78,500 employees worldwide.

Siemens AG (Berlin and Munich) is a leading technology company focused on industry, infrastructure, mobility, and healthcare. The company's purpose is to create technology to transform the everyday, for everyone. By combining the real and the digital worlds, Siemens empowers customers to accelerate their digital and sustainability transformations, making factories more efficient, cities more livable, and transportation more sustainable. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a leading global medical technology provider pioneering breakthroughs in healthcare. For everyone. Everywhere. Sustainably.

In fiscal 2024, which ended on September 30, 2024, the Siemens Group generated revenue of €75.9 billion and net income of €9.0 billion. As of September 30, 2024, the company employed around 312,000 people worldwide on the basis of continuing operations. Further information is available on the Internet at www.siemens.com.

About DOMO Chemicals

DOMO Chemicals provides polyamide-based engineered materials solutions and services for the automotive, consumer goods, industrial goods, electricals and electronics industries. Based on the company's upstream and downstream integration, DOMO also serves the agricultural, chemical, pharmaceutical, fiber and textile sectors. Its complete portfolio of polymer-based products and services includes chemical intermediates, engineering plastics and performance fibers. Some of its best-known brands include TECHNYL® engineered materials, STABAMID® PA66 virgin grades, DOMAMID® PA6 virgin resins, NYLEO® Polyamide 66 fibers and TECHNYL® 4EARTH® sustainable polyamides.

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