

40 per cent higher motor torque than electric steel:

VACUUMSCHMELZE presents new VACODUR 49 alloy at Coil Winding

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Hanau / Frankfurt – At this year's Coil Winding, held in Berlin from 26 to 28 June, VACUUMSCHMELZE GmbH & Co. KG (Hanau) will present another new alloy at Stand 4413 in Hall 2.2: VACODUR® 49 has been developed for high-performance motors and generators. The new alloy features a high saturation level of 2.35 T, and complies with the international ASTM A801 Alloy Type 1 standard. The magnetic and mechanical properties of the alloy can be optimised for specific applications by adjusting the heat treatment appropriately.

Dr. Niklas Volbers will give a talk on the new alloy at the INDUCTICA Conference, part of the trade show, on 27 June between noon and 12:30 pm.

The outstanding magnetic and mechanical properties of VACODUR® 49 make it ideal for both stator and rotor assemblies. While its magnetic properties can be optimised for use in stator applications, yield points of up to 400 MPa can be achieved for rotor assemblies, significantly outperforming the magnetic and mechanical properties of classic electrical steel.

The first use of the new material is in a permanent-magnet synchronous motor produced by AMK, which will also be on show at VAC's stand at Coil Winding in Berlin. In this design, the replacement of conventional electrical steel with VACODUR® 49 has enabled the torque to be boosted to 51 Nm - an improvement of 40% .

AMK motors are already proven in practice; in this year's Formula Student Electric event, three teams have chosen to rely on VACODUR 49 power. VAC is proud to become an official sponsor of these speedy students, who hail from Stuttgart University, Hanover's Leibniz University and TU Delft.

VACUUMSCHMELZE GmbH & Co. KG

VACUUMSCHMELZE (VAC) with 1,500 employees in Hanau, designs, produces and markets advanced materials, particularly with magnetic, but also with other physical qualities as well as related products. In 1914, the first vacuum furnace laid the foundation for today's VACUUMSCHMELZE. Industrial vacuum melting techniques for alloys have been in operation since 1923.

VAC Group today achieves annual sales of more than 450 million Euros in over 40 countries and is holder of more than 750 patents. The company is among the world's most highly innovative developers of advanced industrial materials.

VAC's range of products comprises a broad array of advanced semi-finished materials and parts, inductive components for electronics, magnets and magnet systems for use in a wide variety of fields and industries spanning watch-making and medical technology, renewable energies, shipbuilding, automotive and aviation. VAC's custom solutions are developed in close collaboration with the customer, reflecting the company's expertise in materials, applications and state-of-the-art production technology.

Find out more at www.vacuumschmelze.com

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