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Flexible Electrical Insulation

An innovative concept for the world
of electrical insulation



“We Use Our Know-How to Continually Advance Our Product Portfolio.”

As a chemist and divisional manager at ELANTAS, my focus is on the technological advancement of electrical insulation solutions. Within ELANTAS, we are consistently drawing upon our own technical expertise. This generates solutions that enable our customers to produce energy efficient, more reliable and safer products.

With its historical background in electrical insulation, ELANTAS has long since established itself as the acknowledged benchmark for quality and technology. As such, our extensive knowledge in the area of wire enamels and impregnating resins has now enabled us to deliver innovation in the area of **Flexible Electrical Insulation**.

Our entry into the field of Flexible Electrical Insulation represents a major evolutionary advance in our product portfolio.

I am therefore extremely pleased to be able to introduce a new ELANTAS product line for your needs and applications.

Our aim is to provide you with a solution that delivers extended service life and enhanced safety for your electrical machines - ELANTAS empowering you to use our competence in a more flexible style.

A handwritten signature in white ink on a blue background, appearing to read 'G. Forstbach'.

Dr. Guido Forstbach

Division President ELANTAS GmbH

ELANTAS

A Thirst for Knowledge Backed by a World-Renowned Chemical Enterprise



As an autonomous unit of the ALTANA Group with its own global network of research laboratories, ELANTAS is a preferred partner for many organisations for market-ready and holistic solutions. The personal commitment of all our employees, enables ELANTAS to maximize its customer's portfolios through sophisticated innovations that add true value.

ELANTAS companies are strategically located around the globe to meet the needs of their customers. In all parts of the world, ELANTAS Electrical Insulation is respected as a market leader in the development and manufacture of impregnating resins, varnishes,

wire enamels, potting compounds and casting resins for electrical, electronic, industrial, aerospace and civil applications.

Electrical insulation – proven in practice

Computers and television sets, espresso machines and drills, windshield wipers and water pumps - our world is full of technology that makes many aspects of everyday life easier.

Electrical devices often contain a number of components such as motors, transformers and electronics, which we do not even notice because

they function so reliably. A low failure rate reflects positively on their quality, starting with a well-specified electrical insulation system. Products made by ELANTAS contribute to the safety, reliability, and long life of such devices.

ELANTAS – the partner of choice for technical solutions

- Technology leader
- Electrical insulation specialist
- Globally located for local service
- Reliable solutions
- System-based component offerings
- Research & development-driven



Flexible Electrical Insulation
The Next Chapter



Flexible Electrical Insulation Innovation Technology

Excellent insulation material performance is critical wherever electrical components have to operate and it is even more so under extreme conditions. This applies whether the insulation material is used in motors, generators, transformers or the electronics industry. Depending on the application, the requirements for the insulation material can vary greatly.

During the design of electrical equipment the prevention of electrical short circuits is always a key consideration. Electrical faults can be caused by many factors including application conditions, electrical and thermal stress and even poor product design. In such circumstances, to prevent failure, insulation materials must have excellent electrical and mechanical properties and yet be sufficiently flexible and durable to withstand the rigours of the manufacturing process and extended operating conditions.

A wire enamel coating protects individual wires from short circuiting. **Flexible Electrical Insulation** layers protect in-

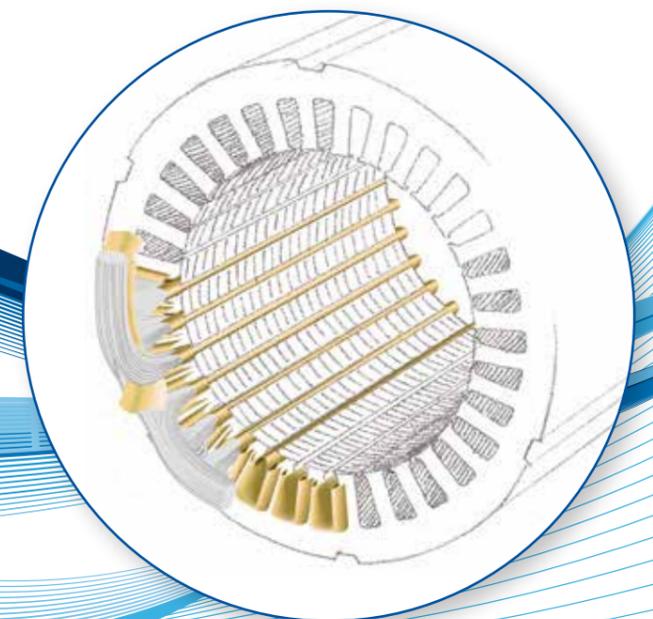
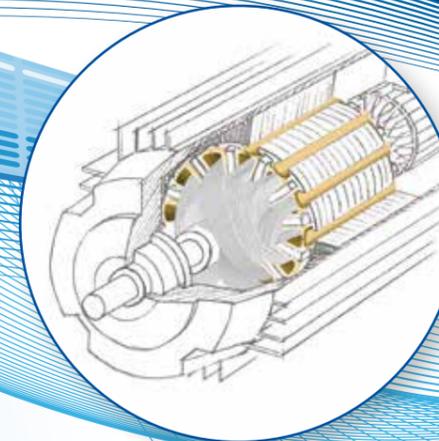
ulated wires from coming into contact with steel cores, hold wires in place, and provide a phase-to-phase barrier. To protect the conductor and insulation structure against mechanical, electrical, environmental and thermal stress, the whole winding is then consolidated using a compatible resin system.

ELANTAS has used its chemical expertise to develop an advanced flexible insulation in the form of its proprietary product innovation **ELAN-Film®**. In the face of continually increasing demands on the performance of electrical machines, ELANTAS is bringing to market an innovative solution for flexible electrical insulation applications, with the quality and performance you expect from us.

ELANTAS offers an uncompromising selection of insulation components designed to ensure superior reliability, efficiency, and performance of electrical equipment.

Flexible Electrical Insulation material applications:

- AC motors
- DC motors
- Generators
- Dry type transformers
- Electronics industry



ELAN-Film®

Developed with Vision Deployed without Compromise

ELANTAS is dedicated to developing the application possibilities of electrical insulation materials even further.

ELAN-Film® expands the ELANTAS range of products to include new, superior **Flexible Electrical Insulation** materials, which ELANTAS can now offer as an optional overall insulation system solution.

We understand your application requirements precisely and can satisfy them with our tailored solutions.

A totally new flexible electrical insulation concept

Using our own specially-developed advanced layer technology, our innovative **ELAN-Film®** products precisely serve today's market needs in the low-voltage segment. Working together, with our customers, we are laying the groundwork for a new generation in **Flexible Electrical Insulation**.

PAI competence points the way

Withstanding extreme constant stresses – mechanical, thermal, chemical and electrical – is a fundamental

prerequisite that every insulation material must meet. However, when it comes to **Flexible Electrical Insulation**, ELANTAS goes beyond that and utilises its extensive knowledge in applications and its patented foundation for polyamideimide wire enamels to develop an entirely new technology: advanced PAI layer technology.

We're not about compromise. We're about:

- Overall custom solutions that extend service life
- Technically derived, new generation of electrical insulation materials
- Advanced PAI layer technology
- **Flexible Electrical Insulation**

Our declared aim is to focus on the uncompromising safety and long service life of your electrical machines both today and tomorrow.

