Press Release

RAMPF: Silicone, Polyurethane, and Epoxy Resins with Maximum Thermal Conductivity

Customized Electro Casting Resins for Power Electronics at electronica 2018 – Hall A5 / Booth 224

Grafenberg, October 30, 2018. RAMPF Polymer Solutions is presenting its range of high-performance silicone, polyurethane, and epoxy casting resins with maximum thermal conductivity at electronica 2018 in Munich, Germany, from November 13 to 16 – Hall A5 / Booth 224.

The automotive, energy, automation, and household goods industries are all dependent on developments in storing and transferring electricity. Electro casting resins are thus a key technology driver in these and other sectors.

Electro casting resins from RAMPF Polymer Solutions provide reliable and effective protection against chemicals and environmental influences such as heat, cold, and moisture for sensitive electronic components in cars, high-precision measuring, monitoring, and regulating sensors as well as in numerous other electrical/electronic components.

With their outstanding thermal conductivity, RAMPF polyurethane and silicone resins ensure that heat is efficiently dissipated from components and the required mechanical flexibility maintained. This enables the implementation of numerous innovative solutions for power electronics components.

**RAKU® SIL silicone-based electro casting resins**

RAKU® SIL electro casting resins offer a wide application temperature range of up to 250°C and are used in numerous power electronics applications.

RAKU® SIL electro casting resins protect sensitive electronic components that require flame retardancy, high temperature resistance, and lasting flexibility. Besides excellent heat dissipation, RAMPF silicone resins boast first-rate flow properties and deliver maximum protection against harsh environments, vibrations, and temperature shocks.
RAKU® PUR polyurethane-based electro casting resins

RAKU® PUR electro casting resins are used in applications such as motors, control units, inverters, transformers, and chokes.

RAKU® PUR electro casting resins are low-viscosity for the efficient processing of complex components with short process times. The customized casting resin systems achieve values of up to 2.5 [W/(m*K)] and, alongside high flexibility, also offer outstanding thermal shock resistance, which maximizes component service life.

RAKU® POX epoxy-based electro casting resins

RAKU® POX electro casting resins reliably protect complex structures such as this transformer, which are exposed to high loads.

Thanks to their low viscosity, RAKU® POX electro casting resins boast exceptional impregnation properties. The epoxy systems also impress with their excellent thermal conductivity and low sensitivity to moisture. What's more, their superb flow properties make them ideal for use with complex components, for example items with coils such as transformers, stators, and generators.

Tailor-made systems for maximum performance

“Our two-component electro casting resin systems are tailored specifically to our customer’s requirements,” Jean-Michele Pouillaude, Key Technology Manager Electrocasting at RAMPF Polymer Solutions, points out. “This way, we ensure that electronic/electrical systems deliver optimum performance with a maximum service life.”
RAMPF Polymer Solutions GmbH & Co. KG is a leading developer and manufacturer of reactive resin systems based on polyurethane, epoxy, and silicone. The company also possesses comprehensive expertise in application technology.

The product portfolio of RAMPF Polymer Solutions includes liquid and thixotropic sealing systems, electro and engineering casting resins, edge and filter casting resins, and adhesives.

Research and development are highly prioritized: Based in Grafenberg (near Stuttgart), Germany, the technology pioneer and quality leader has laboratories and facilities for application technology within its spacious Innovation Center. Every day in the RAMPF Innovation Center, new products are developed, existing products are adapted to specific customer requirements, and a huge range of material combinations are tested.

The materials created in the laboratory are tested in the application technology department, where samples are also made for customers to further enhance product quality and reduce the time to series production. Naturally, customers also receive support during the product rollout phase and production process.

RAMPF Polymer Solutions attaches particular importance to renewable raw materials during the initial research phase. Biopolyols are developed in cooperation with sister company RAMPF Eco Solutions. The potential use of recycled polyols in the composition of new products is also closely examined.

RAMPF Polymer Solutions is a company of the international RAMPF Group based in Grafenberg, Germany.