

Mineral Casting Technology from RAMPF: Maximum Vibration Damping For Maximum Dynamic Stability

World-market leader presents epoxy-resin-based EPUMENT[®] material and pioneering molding technology at CCMT 2024

Nantong, China, 26.03.2024. RAMPF China is presenting its EPUMENT[®] mineral casting technology for the manufacture of high-performance machine beds and structural components at (China CNC Machine Tool Fair) in Shanghai from April 08 to 12 – hall N2, booth A221



EPUMENT Mineral casting is used for the construction of machine beds and frame components such as uprights, gantries and traverses. Mineral casting enables a unique variety of designs and can be adapted precisely to individual customer requirements

The epoxy resin-bonded mineral casting material EPUMENT[®] from RAMPF is used across the globe in vibration-damping machine beds and machine bed components in the machine tool construction, semiconductor, laser, medical, and packaging industries, amongst others.

The key advantage of the epoxy resin-aggregate bonded material over cast iron and steel fabrications is the significantly higher vibration damping, which provides for higher precision and better finishes of machined parts and longer cutting tool life. Comparative measurements of the logarithmic decrement as a damping parameter show that mineral casting has a damping capacity that is eight to ten times greater than metal.

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Further benefits of EPUMENT[®] mineral casting include:

- Thermal stability.
- Design flexibility – castings can be made to varying wall thicknesses.
- Superior chemical and corrosion resistance to most alkalis, oils, and cutting fluids.
- Cost efficient through component integration and casting to finished tolerances.
- Noise reduction.
- Short lead times.

The demand for EPUMENT[®] mineral casting is also rapidly increasing due to its resource-efficient manufacturing and environmentally-friendly disposal and recycling:

- The mineral casting is cold cast in molds made from wood, steel, or plastic, with the manufacturing process requiring up to 75 percent less energy than metallic castings.
- The high casting precision, combined with RAMPF's groundbreaking in-house replication technology, eliminates the need for external processes and reduces/avoids the use of processing machinery; CO₂ emissions are roughly 50 percent lower when precision surfaces are replicated rather than milled.
- Mineral castings are near 100 percent recyclable, they can be reused or disposed of similarly to normal construction materials.

Tiger Meng CEO at RAMPF China: „RAMPF is the world's biggest producer of mineral casting. We have almost three decades of experience in developing and constructing machine beds and machine bed components using this high-performance material. We look forward to presenting the enormous technical advantages, cost benefits, and outstanding green credentials of EPUMENT[®] mineral casting at CCMT 2024.“

Visit RAMPF at CCMT Shanghai – hall N2 / Booth A221!

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<https://www.rampf-group.com/en-cn/>



RAMPF (Nantong) Co. Ltd. mit Sitz in Nantong produziert

- > Maschinenbetten, Maschinengestelle und weitere Konstruktionsteile aus Mineralguss, Hartgestein und Metallschalenskonstruktionen
- > Zweikomponenten-Polymersysteme auf Basis von Polyurethan, Epoxid und Silikon
- > Materialien für den Modell- und Formenbau

Diversität ist für RAMPF eine Selbstverständlichkeit. Folglich verzichten wir ausschließlich aus Gründen der besseren Lesbarkeit auf die Verwendung geschlechtsspezifischer Sprachformen. Die gewählte Form gilt im Sinne der Gleichbehandlung gleichermaßen für alle Geschlechter (m/w/d). Die verkürzte Sprachform hat nur redaktionelle Gründe und beinhaltet keine Wertung.

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