

## PRESS RELEASE

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### **Morgan Advanced Materials delivers comprehensive supply chain solution for medical and dental implant market**

The Technical Ceramics business of Morgan Advanced Materials is advising manufacturers of medical and dental components to consolidate their supply chains, in response to an imminent surge in demand within the implant market.

The recommendation follows a recent change in legislation whereby some US medical insurers now cover implantable devices; a development which is expected to drive increased demand for medical implants. By working with a single supplier that can deliver solutions at multiple stages of the supply chain, this can enable improved quality, cost savings, and reduced lead times for manufacturers.

A global specialist in advanced ceramic materials, Morgan's proprietary zirconia grade is ISO 13356 approved, ensuring full compliance with stringent regulations around the production of medical implements. Such applications include surgical tips that are widely used in microwave ablation operations for cancer treatment, as well as implantable casings that can become part of a miniaturised bioelectronic device used in cranial and spinal implants. Unlike other material suppliers, Morgan's Technical Ceramics business has the capability to deliver ceramic to metal assemblies utilising molybdenum manganese (MoMn) brazing and metallised ceramics as well as active alloy brazing with Morgan Technical Ceramics' extensive range of active braze alloys (ABAs).

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Moreover, Morgan's Technical Ceramics business is embracing the 'metal free concept' for dental implants that is widely acknowledged as the next phase in dental implant technology, where its industry-leading expertise in ceramic materials is enabling the business to meet future demand.

This has been made possible by Morgan's continued investment in Ceramic Injection Moulding (CIM) technology, which is allowing for complex parts to be produced in high volumes to tolerances as low as 0.5%. Compared with conventional methods for manufacturing engineering ceramic components, where tolerances are typically between 1-2%, this approach eliminates the time and cost associated with additional machining of components, resulting in high tolerance parts in complex geometries for manufacturers within shorter lead times.

Many implants now incorporate electrical circuits as part of their design, adding further complexity to the supply chain due to the requirement for specialist brazing. Morgan's Technical Ceramics business has world-leading expertise in this area, and its global presence of manufacturing sites located in the UK, Germany, and USA, are helping implant manufacturers to consolidate their supply chains while providing reassurance that rigorous quality control standards are upheld.

Dr Yifei Zhang, Business Development Manager at Morgan's Technical Ceramics business explained: "We are expecting a real increase in demand for medical implants and our integrated business model means we are well positioned to help accommodate future demand. By working with a single supplier, as opposed to a network of multiple suppliers, this can facilitate time and cost savings, shorter lead times and better component quality. Our longstanding relationship with the medical sector makes us the ideal partner for manufacturers of implants."

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For further information, please visit: <http://www.morgantechnicalceramics.com/Medical>

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### **About Morgan Advanced Materials**

Morgan Advanced Materials is a global materials engineering company which designs and manufactures a wide range of high specification products with extraordinary properties, across multiple sectors and geographies.

From an extensive range of advanced materials we produce components, assemblies and systems that deliver significantly enhanced performance for our customers' products and processes. Our engineered solutions are produced to very high tolerances and many are designed for use in extreme environments.

The Company thrives on breakthrough innovation. Our materials scientists and applications engineers work in close collaboration with customers to create outstanding, highly differentiated products that perform more efficiently, more reliably and for longer.

Morgan Advanced Materials has a global presence with over 10,000 employees across 50 countries serving specialist markets in the energy, transport, healthcare, electronics, petrochemical and industrial sectors. It is listed on the London Stock Exchange in the engineering sector.

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