Material Solutions for Dental / Medical Applications





LIFE SCIENCE GRADES



Development time is key factor when bringing medical applications to market. To meet the challenge, Quadrant Engineering Plastic Products has specifically developed a portfolio of Life Science Grades which are pre-qualified biocompatible materials, cutting costs and giving you a head start on competition.

BIOCOMPATIBILITY



The QEPP Life Science Grades successfully passed a series of biocompatibility tests, run in order to check their compliance with both United States Pharmacopeia (USP) and ISO 10993-1 guideline requirements for Biocompatibility Testing of Materials.

TRACEABILITY / RELIABILITY



The Life Science Grades come with full traceability from raw material to stock shape. They are compatible with most common sterilisation techniques such as autoclaving, ethylene oxide, gamma irradiation and hot air sterilisation up to 180°C, and show good transparency to X-rays.

We provide high performance plastics as rod, plate or tube for machining or as finished parts. With over 60 years of expertise, our unique service approach provides the platform for bringing your concept to market.

Let Quadrant help you build the perfect medical application.



KETRON[®] PEEK-CLASSIX[™] LSG temporary abutment

Challenges: A material that better adapts to the gingiva form but is also biocompatible was required by surgeons. Traditionally titanium has been used for both the healing cap and as a provisional implant to form the gingiva.

Solution: KETRON® PEEK-CLASSIX™ LSG is a high performance material offering excellent mechanical, thermal and chemical properties as well as biocompatibility.

Benefits: Enables completion of the abutment to the desired form, and the material can stay in the body for 30 days / 180 days with written approval.



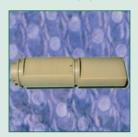


KETRON® PEEK LSG dental polishing equipment

Challenges: Jet systems that utilize a mixture of air, powder and water are used for the removal of soft plaque deposits by dentists. The equipment required has to be of high precision, able to withstand multiple sterilization cycles in steam and hot air of temperatures up to 170-180°C. Further it has to be wear resistant to the cleaning mixture.

Solution: KETRON® PEEK LSG due to its dimensional stability and steam sterilisation resistance and its suitability for body contact time of up to 24 hours which is essential in this application.

Benefits: The life time of the KETRON mixing head exceeds that of the equipment.



Benefits - the market relies on

The dental market requires biocompatible materials for applications like dental grips, gingiva formers and healing caps. The product range of Quadrant Engineering Plastic Products also includes biocompatible materials for dental applications. We have one of the industry's most extensive ISO 10993 and USP Class VI compliant testing and certification packages. We deliver chemically resistant polymers, with superior combinations of strength and stiffness. They are intended for applications that can remain in contact with human tissue or bodily fluids for up to 30 days. A maximum of 180 days is possible for dental healing caps with written approval.



Learn more online at www.quadrantplastics.com

Quadrant has extensive product and machining resources available online. Our website is a portal to a wealth of technical data and the easiest way to engage our application specialists. Our team stands ready to help offer solutions to your toughest problems.

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