



Proteus® LSG HS PP Quadrant Life Science Grade (LSG)

Material Solutions for the Medical Industry

Market Trends

Uncompromised quality is key in the medical industry. Materials with an excellent cost-performance ratio are the future in a more and more sensitive Medical and Life Science Industry. In addition, proof of biocompatibility and controls are prerequisites for sustainable material qualifications.

Quadrant Answers

Quadrant's Proteus® LSG HS PP (heat-stabilized Polypropylene) exhibits a heat deflection temperature that allows the material to be used in repeated steam and autoclave sterilization cycles. It is highly resistant to cleaning agents, disinfectants and various solvents. Typical applications for Proteus® LSG HS PP include surgical trays, caddies and instrument components.

Customer Benefits

Quadrant's Proteus® LSG HS PP is available as plates. The production process includes a special heat-treatment phase that allows for the higher heat deflection temperature and, thus, improved machinability and dimensional stability. Under the label of Quadrant's Life Science Grades (LSG), Proteus® LSG HS PP shapes are tested and certified for biocompatibility per ISO10993-5 and USP VI to ensure quality throughout the entire manufacturing process. This offers the designer increased safety, approval facilitation, as well as reduced cost and time to market.

Quadrant's Proteus® LSG HS PP - At a Glance

Properties of Proteus® LSG HS PP

- Superior resistance to common autoclave/steam sterilization techniques as a result of the high heat deflection temperature (HDT > 300 °F / 149 °C per ASTM D 648)
- Excellent dimensional stability
- Proven biocompatibility per ISO 10993-5 and USP VI on stock shapes to meet compliance requirements
- Excellent machinability
- Lot traceability & material certification
- Available in standard colors: white and black
- Available as plates
- Other colors possible via make to order (MTO) request

Available as plates in white and black.

- Sizes: 24" x 48" (600 mm x 1200 mm)
- Thickness: 1", 1.5", 2" (25.4 mm, 38.1 mm, 50.8 mm)

Quadrant produces machinable advanced engineering materials such as Ketron® LSG PEEK, Quadrant® LSG PPSU, Quadrant® LSG PSU and Duratron® LSG PEI as rod, plate or tube and can facilitate the manufacture of finished parts from its full range of materials. This broad product range and our knowledgeable application development team can support your use of our pre-certified, biocompatible Life Science Grades, as well as implantable grade PE-UHMW (Chirulen® and Extrulen™).

Quadrant Engineering Plastic Products

Quadrant EPP AG | **Europe**
Hardstraße 5
CH-5600 Lenzburg
T +41[0] 62 8858150
F +41[0] 62 8858385
contact@qplas.com

Quadrant EPP USA, Inc. | **North America**
2120 Fairmont Avenue
PO Box 14235 - Reading, PA 19612-4235
T 800 366 0300 | +1 610 320 6600
F 800 366 0301 | +1 610 320 6638
americas.epp@qplas.com

Quadrant EPP Asia Pacific Ltd | **Asia-Pacific**
60 Ha Mei San Tsuen, Ping Shan
Yuen Long - NT Hong Kong
T +852 24702683
F +852 24789966
asia.epp@qplas.com

This brochure and any data and specifications presented here or on our website shall provide promotional and general information about the Engineering Plastic Products (the „Products“) manufactured and offered by Quadrant Engineering Plastic Products („Quadrant“) and shall serve as a preliminary guide. All data and descriptions relating to the Products are of a general informational nature only. Neither this brochure nor any data and specifications presented on our website shall create or be implied to create any legal or contractual obligation. This brochure and any data or specifications herein do not create expressly or by implication any legal, contractual or warranty obligation whatsoever. No warranty of any kind, either express or implied, is made as to the information contained in these pages, including, but not limited to, all warranties provided for by Louisiana law, any implied warranty of merchantability, of fitness for a particular purpose, and any warranty against hidden defects or redhibitory defects or vices. No information in this brochure creates any express or implied warranty that the goods described here in shall conform to any description herein. Quadrant sells the products described herein solely to sophisticated users and not to consumers, and Quadrant assumes no responsibility that any goods described herein will be fit for any particular purpose for which a Quadrant customer may determine to purchase such goods, except and to the sole extent otherwise provided in a separate written contract.

Any illustration of the possible fields of application of the Products shall merely demonstrate the potential of these Products, but any such description does not constitute any kind of covenant or warranty whatsoever. Irrespective of any tests that Quadrant may have carried out with respect to any Product, Quadrant does not possess expertise in evaluating the suitability of its materials or Products for use in specific applications or products manufactured or offered by the customer respectively. It thus remains the customer's sole responsibility to test and assess the suitability and compatibility of Quadrant's Products for its intended applications, processes and uses, and to choose those Products that according to its assessment meet the requirements applicable to the specific use of the finished product. The customer undertakes all liability in respect of the application, processing or use of the aforementioned information or product, or any consequence thereof, and shall verify its quality and other properties.

Quadrant's Products should not be used for applications involving medical devices that are intended to remain implanted in the human body continuously for a period exceeding 24 hours (30 days*), or are intended to remain in contact with internal human tissue or bodily fluids for more than 24 hours (30 days*), or as critical components of medical devices that are essential to the continuation of human life.

*: „30 days“ applies to Ketron® PEEK-CLASSIX™ LSG white only.

Quadrant is not a medical device manufacturer and the information herein does not constitute any express or implied warranties or representations whatsoever, including, but not limited to, all warranties provided for by Louisiana law, any implied warranty of merchantability, of fitness for a particular purpose, any warranty against hidden defects or redhibitory defects or vices, or that Quadrant's materials are manufactured in accordance with the quality standards appropriate and necessary for materials intended for use in implantable medical device applications and in applications that are essential to the restoration of or continuation of a bodily function important to the continuation of human life.

Chirulen®, Duratron®, Extrulen™, Ketron® and Proteus® are registered trademarks of the Quadrant group of companies.

Learn more online at www.quadrantplastics.com

Quadrant has extensive product and machining information 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.

Distributed by:

You inspire ... we materialize®

