# Material solutions for pharmaceutical processing and packaging





## TRENDS



In today's competitive pharmaceutical industry, drug production and packaging lines are becoming faster and more efficient. This high-speed processing generates more wear, heat and noise. Parts must also withstand rigorous cleaning and sanitising procedures.

## **KEY PROPERTIES**

QEPP has a wide range of material solutions to address these demands. Our highperformance plastics are designed for self-lubricating situations. They withstand high-frequency hot chemical washing. Cleaning is easier due to the smoother surface and reduced adhesion of plastics compared with stainless steel. Since platics are lighter than metals, weight reduction leads to increased speed and efficiency. In case parts break, colour-coding provides a vital aid, allowing a quick response and easy part exchange.

## **CUSTOMER BENEFITS**



The result is less down time, improved performance and cost savings. Our solutions for the pharmaceutical industry comply with North American and European regulations. Materials meet the highest USP or FDA standards when required.

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.





#### ERTALYTE® TX Piston Guide in a Rotary Tablet Press

**Challenges:** Guides to function as a kind of cam were needed for a sinusoidal up and down movement of the piston at a speed of 2.7 m/s. The function occurs while the tablet press carrousel is rotating, so complex machining was required to obtain the necessary geometry.

**Solution**: ERTALYTE<sup>®</sup> TX for the parts that form the complete circle. The material has a low coefficient of friction, exceptional wear resistance and outstanding machinability.

**Benefits**: Grease free solution ideal for a clean production environment.





SYMALIT<sup>®</sup> ETFE CGS/FRP Bromine and Chlorine Scrubber

**Challenges**: The complex geometry of a scrubber with a diameter of 1.82m and a total height of 8.53m required welds. Designed for pharmaceutical operations the scrubber needed to resist bromine and chlorine as well as high pressures and vacuum conditions with temperature up to 88°C.

**Solution**: SYMALIT<sup>®</sup> ETFE GGS / FRP Duallaminate construction (thermoformed heads to reduce the number of welds).

**Benefits**: Outstanding chemical resistance, temperature resistance of 155°C, smooth surface reducing contamination risks, no corrosion as with stainless steel, low maintenance costs and longer life time.



#### Benefits - the market relies on

Drug makers need specialised equipment and machines to meet regulatory standards and high speed operating environments. Frequent sanitising using cold and warm water in combination with detergents and other harsh chemical cleaners such as nitric acid or hydrogen peroxide based ones, is the norm in the industry today. Our materials easily fit into self-lubricating designs. Scaling up for big parts is no problem, with plastic's relatively low weight giving it an advantage over other materials.

Parts can be machined out of our dimensionally stable materials to tight tolerances. Various colours are available to identify drug contamination and reduce down time.



# 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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