

in Bishop now enables us to manufacture new grades of GUR® that will support innovative business opportunities. In addition to that, we can offer supply reliability, particularly in the NAFTA area, and leading quality product solutions to our customers.”

Heavy Duty GUR® Polymer

GUR® is an ultra-high molecular weight polyethylene (UHMW-PE). The polyethylene molecules are so “long and entangled” that GUR® is extraordinarily tough and resistant to wear and tear, chemicals and extreme temperatures. The extreme molecular weight is achieved with proprietary Ticona technology for polymerizing ethylene. Due to its special combination of properties, GUR® is used in applications having a high degree of abrasion and impact: Besides being used to line truck beds, it is also used for

marine dock fenders, chain sprockets, conveyor channels, and as the bottom contact surface of skis, for example. Due to its chemical resistance, GUR® can also be found in galvanizing processes, slurry pumps, silo linings, and as porous molded components in filter technology.

Celanese has been producing GUR® since the 1950’s. In recent years, technical marketing has opened up some innovative applications for the polymer. These include: molding purge compounds, membranes for battery technologies, substrates for medical diagnostic tools, fibers for ballistic and recreational uses, and even some injection molded parts. Furthermore, GUR micropowders® can be used to increase the abrasion resistance or protect and alter the surface properties of polymers, rubber, and coated surfaces. ◀

VECTRA® – THE HIGH END POLYMER

Ticona is not only the market leader for GUR® and Hostaform®, but also for Vectra® LCP, a liquid crystal polymer with unusual properties. Vectra’s® special structure yields a significant improvement in its mechanical properties, making it stronger, stiffer and dimensionally more stable than other polymers, particularly at reduced wall thickness. In addition to this, it has a high resistance to temperature and fire and absorbs little water. With this profile of characteristics, Vectra® is primarily used for applications in electrical and electronic components, fiber optics, medical equipment

such as endoscopic instruments, in the manufacture of cars and engines, as well as in the aerospace industry. Many molded components which were previously made of light metal alloys or other polymers are now made from Vectra®, resulting in fewer problems and more economical production. At the beginning of 2002, Vectra® was also granted FDA approval as a packaging material for pharmaceuticals and food ingredients.

Ticona supplies the NAFTA region and Europe from the Vectra® plant in Shelby, North Carolina. In May, the plant

there began to operate using its expanded capacity of 6,000 metric tons per year. Ticona’s Vectra® customers in Asia are supplied by Polyplastics, a joint venture between Ticona and Daicel Chemical Industries. Ticona is well prepared for the demand it expects to have from customers in existing markets, such as the telecommunications and electronics industry, and new markets, such as medical technology and special packaging.