



Case study: Air Treatment  
 DuPont  
 Charleston, South Carolina

**BENEFITS**

- Efficient use of energy
- Consistent process humidity level
- Precise dew point control

In the production process, a Munters Wringer® dehumidification system is used for drying.

## Drying a Popular Plastic

At its Cooper River plant in Charleston, South Carolina, DuPont produces high-performance Hytrel polymer for many applications. The global chemical and plastics giant sells Hytrel in the form of pellets as a raw material to OEMs, who then fabricate it into a multitude of consumer products. Applications are mostly for the automotive industry, ranging from constant-velocity joint boots to covers for air bags. Hytrel works well for these types of parts because of its superior cold-weather properties.

To achieve the highest quality, DuPont goes to great lengths in its production process to dry the pellets by running fresh, hot air through them. A roof-mounted Munters manufactured Wringer® dehumidification system provides the required dry air.

The Wringer® condenses moisture out of the air by cooling it with mechanical refrigeration to a dew point of 45°F. Energy use is optimized as outside air and cool air from the refrigeration coil pass through opposite sides of a counter-flow air-to-air heat exchanger. Heat recovery takes place

to precool the warm air coming in (94°F is used as the summer design condition) to 68°F, and it reheats the cool air back up to 83°F for drying. This reduces the tonnage of the equipment required for cooling and dehumidification, and it saves energy as well.

