

HEATEC BULLETIN

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New Donlar manufacturing facility in Peru, Illinois

Donlar uses Heatec heater in production of polyaspartate polymers

The Donlar Corporation of Bedford Park, Illinois recently built a new manufacturing facility in Peru, Illinois to produce polyaspartates. The plant was designed by R.W. Cooper and Associates, Chicago, Illinois. The facility employs a Heatec heater for process heating.



Heatec thermal fluid heater provides process heat for production of polyaspartate polymer

Polyaspartates comprise a new class of environmentally friendly polymers with unprecedented versatility. Applications include industrial water treatment, secondary oil recovery, detergents and soaps, dispersants in paints and coatings, personal care and cosmetics, pharmaceuticals, adhesives, and paper processing. One of the most exciting applications is crop yield improvement.

The polymer is marketed under Donlar's brand name AmiSorb® for use in growing agricultural crops. It is used to enhance the growth and yields of corn, wheat, cotton, soybean and other crops. The product makes mineral nutrients more available to the plant. It does not act as a fertilizer, but simply causes the plant root system to more efficiently absorb fertilizer and nutrients from the soil. It is applied along with the fertilizers normally used for the crop.



Krauss Maffei tray dryer installation



Drying trays used to make polyaspartate polymer

Polyaspartate polymers are produced by heating and drying aspartic acid in a tray dryer at a temperature of 300 degrees C (572 degrees F). Process heat is generated by a thermal fluid heater designed and manufactured by Heatec. The heater employs a helical coil and has an output of 6-million Btu.

Flue gases from the heater are carefully regulated by an O₂ trim system to limit oxygen content to a maximum of 2 percent. This enables the heater to operate more efficiently.

Heatec builds heating and storage equipment for a wide variety of industries. Its products are used at oil refineries, chemical plants, food processing plants, hot mix asphalt plants, concrete plants, asphalt storage terminals, and others. The company also builds heating equipment and containers for ships. Heatec, located in Chattanooga Tennessee, is a division of Astec Industries, a major producer of equipment for road construction.



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