



Key-Lock® mechanical Joint



## Pipeline Drainage System for water well using Bondstrand® GRE pipe

The Kolubara field produces lignite, a light variety of coal used as fuel in the power generation industry and for domestic heating. The production rate is about 25 million tons per year for the whole Kolubara field with approximately 5.2 million tonnes per year for the Tamnava West mine. Before the coal can be mined, the overburden must be excavated with mining machinery which are running 24 hours a day. The mining operations take place below the water levels of the aquifers that occur above and within the coal seams. Therefore, substantial dewatering and drainage is required, to provide stable working conditions for the digging machines. In the mining area, 25 water wells are drilled. The wells are connected to Bondstrand pipes, ranging in size from 4 to 16 inch (100-400 mm), depending on the required flow capacity. The water from the wells is transported to the disposal area of the open pit mine through the suspended pipeline. When the mining machinery reaches the ground water level, the Bondstrand pipes will be disassembled and reinstalled in the next mining location.

### Features & benefits

Key-Lock joints provide easy and fast assembly and re-assembly. Lightweight material provides installation and transport to the new location without the need for heavy equipment and special tooling. UV resistance, corrosion resistance and flexibility of Bondstrand pipes are advantages for pipelines laid on ground surface.

The client selected Bondstrand epoxy pipe based on its proven performance for [Kolubara](#) in 2006 where the pipe is used as a re-installable pipeline.

### Project

Water transport from water wells to disposal area at the Open Pit Mine Kolubara Tamnava West Field, Serbia

### Client

EPS – Electric Power Industry of Serbia

### Pipe system

Bondstrand 3412 unlined with Key-Lock mechanical joints

Diameter: 4-16 inch (100-400 mm)

Quantity: 8.600 meter

### Operating conditions

Operating pressure: 10 bar

Design pressure: 12 bar

Test pressure: 18 bar

Operating temperature: Ambient

Design temperature: Ambient

### Installation date

December 2008