

## Polyurethane Foam Fire Hazard

On June 27, 2024, a fire occurred in an underground coal mine after a large quantity of polyurethane foam was injected into a roof cavity. This is the fourth uncontrolled heating event attributed to polyurethane foam application in 4 years. Polyurethane-based foam products produce heat from an exothermic chemical reaction. Injecting large quantities of polyurethane to fill voids can cause underground mine fires.



*Foam injected into a cavity above steel sets.*

## Best Practices

- **Develop a Site-Specific Plan for Void Fills.** The plan should address appropriate formwork (placement of foam), injection volume and rates, personal protective equipment for chemical exposures, temperature monitoring, fire watch, and storage and handling.
- **Follow manufacturer's instructions.**
- **Use the Proper Product.** Do not fill large voids with polyurethane foam products that generate a hazardous amount of heat.
- **Train Miners.** Miners working in the application of polyurethane foam should be trained in the hazards, safety precautions, and manufacturer's Safety Data Sheets (SDS).

Report accidents and hazardous conditions: 1-800-746-1553

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