

# Carboxane 2100 BR fights “whiskey fungus”

## Golden Grain Energy goes beyond corrosion protection



**Location:** Mason City, Iowa  
**Asset:** Ethanol storage tank  
**Owner:** Golden Grain Energy

**Contractor:** Allen Blasting & Coating  
**Date applied:** July - August 2023  
**Products:** Carbozinc 859, Carboxane 2100 BR

### Weighing alternatives to combat *baudoinia* growth

Golden Grain Energy (GGE) produces ethanol for fuels from corn grown in the Midwest. A new storage tank at its facility in Mason City, Iowa, was built in 2023 to meet rising ethanol demand.

A protective coating system would be applied to the tank, but GGE leaders hoped it could also address the growth of a black fungus observed on other tanks on the property. *Baudoinia compniacensis* is a black, sticky fungus that feeds on alcohol vapors.

Frequent cleaning and overcoating is the most common way of addressing the unsightly growth, but GGE’s analysis of the expense and time associated with the conventional approach showed that investing in a coating system containing a fungal growth inhibitor might be more cost effective in the long term.

### Material selection explanation

A primer is not always necessary under the topcoat described below, but GGE invested in the enhanced corrosion protection offered by **Carbozinc 859**. This low-VOC, organic zinc-rich primer is widely used in virtually all industrial markets. It is praised for its cure speed, curing to recoat in around 30 minutes at 75°F (24°C) and 50% relative humidity.

Then came **Carboxane 2100 BR**, a very-low VOC, ultra-weatherable siloxane proven to inhibit fungal growth including *baudoinia compniacensis*. Additionally, Carboxane 2100 BR is isocyanate-free and meets SSPC-Paint 36 Level 3A criteria—the highest level for weathering polyurethanes. Though not done in this case, it can be applied direct-to-metal (DTM) and is a great option for quick-turn or emergency coating projects.

As of March 2024, GGE observed no fungal growth on the new tank. On the basis of the performance of Carboxane 2100 BR, the product is now specified for any future tank or pipe (both new and existing assets) coating projects.



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