

CASE STUDY



Mushrooms are big business in the US. The one aspect in common for all of the mushroom growers is that in providing a crop for the human food supply chain, they all need to comply with strict USDA hygiene standards. This case study concerns a Montrose, Colorado, mushroom farm.

Problem

The client not only had to comply with the regulations but they also specifically wanted to have 3,000 square feet of floors and walls coated without any VOCs whatsoever and absolutely no odor that might impregnate and spoil the product. They were looking for an approved coating that could be in direct or indirect contact with food destined for human consumption.

Solution

Castagra's SG1 has no VOCs, is BPA-free, non-toxic, and is ANSI/ NSF-61 rated for contact with potable water. It is made from renewable castor oil and recyclable gypsum, which is a naturally occurring soft rock found in many areas of the US. The coating sets up quickly and within 24 hours is fully cured, a much quicker time than most conventional epoxy coatings. Once cured, it is completely odorless.

Castagra's SG1 has a number of other critical advantages over conventional coatings. Aside from its toughness and superior adhesion, it retains a degree of flexibility for its entire lifespan, allowing for greater robustness against any physical or thermal shock. Its durability has been well-proven not only as a deck coating on large C-Class ferries over 20-years ago, but also in the fracking industry where it has been used mostly as an internal coating in hundreds oil and production water tanks where the exposure to a cocktail of frac chemicals has demonstrated its extreme ability to resist corrosive chemicals. Twenty-year plus brine tests have shown absolutely no measurable degradation.



Most importantly, Castagra's SG1 permanently retains its ability to self-bond to repair coats, should they be needed, which can be the case in heavy duty manufacturing facilities, unlike many conventional coats where micro-cracking failure can result in the entire surface having to be renewed.

Application Results

The job involved concrete flooring and Masonite walls. These were cleaned and the professionals at Elite Protective Coatings ensured they were also dry with no loose material. Castagra's SG1 was applied at an overall application thickness of 50 mils average for both walls and floors. Tack free state was achieved in about 30 minutes and, in line with typical performance parameters, the coated surfaces were fully cured within 24 hours of application. The entire project lasted two days. The client subsequently reported being completely satisfied with the finish. Most importantly, it met all their particular demands in being a 'natural' product with absolutely no after odor.