CASE STUDY

970-683-8153

This 1.5-million-gallon tank is in a small community of Solterra in Lakewood, Colorado. Eight years ago, it was located in open land but the housing community had built up rapidly around it with hundreds of homes, all making demands on potable water supplies.

The giant steel tank had been built in the mid-1980's and had been out of commission and needed to be rehabilitated for holding potable water for the burgeoning communities.

Problem

The key issue was having a coating that met all safety requirements for being in direct contact with human drinking water. The client also wanted no VOCs, zero toxicity and long term, proven performance on protecting steel, particularly under totally submerged conditions.

Winters are cold in Colorado. The coldest month is January when the average temperature overnight in Denver is 15.2°F.

Castagra's SG1 can be applied to surfaces in the severest of cold temperatures when conventional epoxy coatings have to remain in the container. The surfaces just need to be clean and dry and the application performed with the temperature of the target surface a minimum of 5 degrees Fahrenheit (3 degrees Centigrade) above the dew point, which, in some cases, may involve some heating of the space.

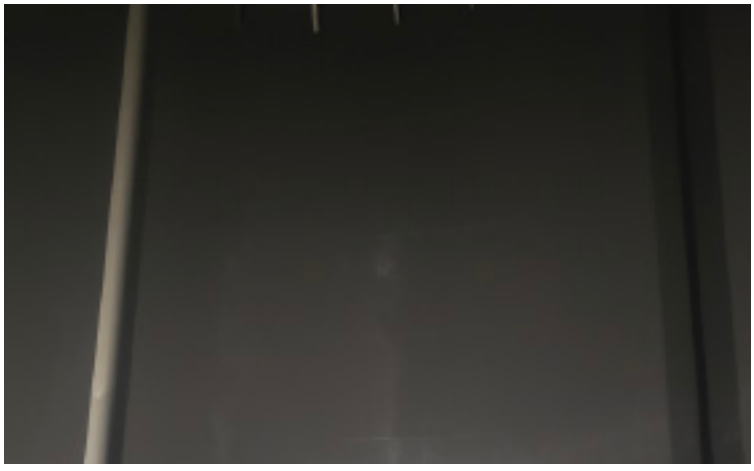
It is recommended that Part A be stored at room temperature - no less than 32°F (0°C) and Part B be stored at temperatures between 75° to 105°F (24° to 41°C).

Solution

Castagra's SG1 has nearly three decades of usage on steel and concrete structures and many in the water and wastewater industries. It currently protects several thousand tanks, including those with contents that prove a real challenge for steel protection in fracking industry where Castagra's SG1 is frequently exposed to a cocktail of corrosive chemicals.

Castagra's SG1 is made from renewable castor oil and naturally-occurring soft rock gypsum. It is VOC-free, BPA-free, completely non-toxic and is ANSI/NSF-61 certified for contact with potable water. It is also Class 'A' flame retardant rated. Brine and seawater submersion tests lasting nearly 25 years, have shown no measurable deterioration.

It can be manually or spray applied and exhibits industry-leading adhesion, and has the long-term ability to take repairs as new coats will molecularly bond to old ones.



Application Results

After some minor welding repairs to the tank and with its interior surfaces cleaned and dried, Castagra's SG1 was sprayed by Elite Protective Coatings. The average coating depth was 30 mils and full cure was achieved in 24 hours. Final inspection revealed no anomalies and the tank was passed fit for purpose.

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