



The Application History of Plastisol

Plastisol was invented and patented in 1926 by Waldo Semon, a chemist working for B.F. Goodrich. Since that time, rubberized polyvinyl chloride has been used by toolmakers and automobile manufacturers. It has appeared in various formulations designed to alter how it is applied and the way it will look when cured.

Ovante first used plastisol to coat construction components as a corrosion preventative in coastal construction after Katrina. That is why some of our test substrates have been actual hurricane ties and straps. The name “Storm Greeter” was adopted to communicate the need for preparedness.

Storm Greeter is formulated to allow for coating large, smooth, vertical substrates in a relatively quick timeframe. Until Ovante began working with Storm Greeter to cover substrates such as steel transmission poles, no one had ever considered plastisol as an alternative. That is surprising, given plastisol’s characteristics when cured.

- Plastisol is inert, tough, abrasion resistant, and colorfast.
- Plastisol’s non-porous nature makes it a formidable shield to chemicals.
- Plastisol is non-conductive, meaning that stray currents will not reach the substrate underneath.
- Plastisol insulates the substrate from galvanic corrosion.

Because Storm Greeter is considered by IEEE and NACE to be an emerging technology, listing historical applications is difficult unless we look to other, similar applications. Plastisols, and polymers in general, have been used to coat corrugated steel pipe in highway applications for several decades. In the 2002 edition of the Corrugated Steel Pipe Institute’s (CSPI) “Handbook of Steel Drainage and Highway Construction Products”, plastisol is specifically credited as adding 25 – 70 years in water immersion and 50 – 75 years in soil immersion applications.

The CSPI Handbook goes on to describe some of their observations over years of use and study. These polymers are typically applied in 10 mil/250 μm thicknesses: Storm Greeter is applied in thicknesses of 30 to 250 mils.