



**STRATEGIC VISIONARY SOLUTIONS®**  
"Providing Solutions to Your Challenges"

**CONSUMERS ENERGY  
SOLAR PANEL  
PILOT TEST YEAR ONE  
REVIEW**

**NANO-CLEAR® VV300 COATING FOR SOLAR PANEL PROTECTIVE PILOT TEST YEAR ONE REVIEW**

**CONSUMERS ENERGY  
Jackson, Michigan**

**Customer:**

Consumers Energy  
Jackson, Michigan

**Project:**

Pilot test for coating Consumers Energy Solar Panels to protect from UV degradation and weathering using Nano-Clear® VV300

**Project Locations:**

Solar Gardens, GVSU Site  
10136 48<sup>th</sup> Avenue  
Allendale, Michigan and  
Circuit West Site  
625 Bridge St N.W.  
Grand Rapids, MI

**Applicator:**

Strategic Visionary Solutions®  
Lenox, Michigan  
POC: Denny Haag

**Coating Formulation:**

Nano-Clear® VV300 coating

**Application System:**

Hand application by brush/roller  
Using commercial equipment

**Date:**

Review Year 1: 10 November 2020  
73°F (average) overcast



Field Panels

**One Year Review of VV300 on Solar Panels at 2 Consumers Energy Locations**

**PROJECT OVERVIEW:**

The Solar Garden at GVSU had 9 ½ panels coated on November 2019 with VV300. The bottom three photographs document the panels after one year of usage. No damage to the coating from environmental or other effects. The coatings stand out from the uncoated panels with a noticeable shine. The Circuit West site had 15 panels coated with VV300 on the roof top site (note top two photographs). All panels had no damage from environmental effects. The coated panels had a noticeable shine vice the uncoated panels.

**COATING FORMULATION:**

**Nano-Clear® VV300** is a high gloss, multi-functional direct-to-PC polycarbonate, plastic and glass coating. VV-300 provides a permanent covalent bond to polycarbonate, TPO, ABS plastics and glass. VV-300 improves optical clarity and provides remarkable scratch resistance, water, dirt, oil and ice repellency, chemical resistance, UV and heat resistance. Nano-Clear VV-300 is designed to dramatically extend the surface life of glass and plastic components, like solar panels, while significantly reducing surface maintenance by 75%. VV-300 is a 3D nano-structured polymeric coating.

**ONE YEAR EVALUATION:**

VV300 applications show no degradation from environmental or durability effects. No adhesion issues were noted. No noted dust and dirt deposits in comparison to uncoated panels. The decreased porosity on the panels due to being coated minimizes the reflective index allowing more convertible light to hit the solar cells. Internal rear reflectance can approach 99 percent. The smooth glass coatings have enhanced scratch and weather resistance. Recommendation is to expand testing and conduct a test on electrical output on a coated versus non coated panel or system of panels.

Please contact us for more information:

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