



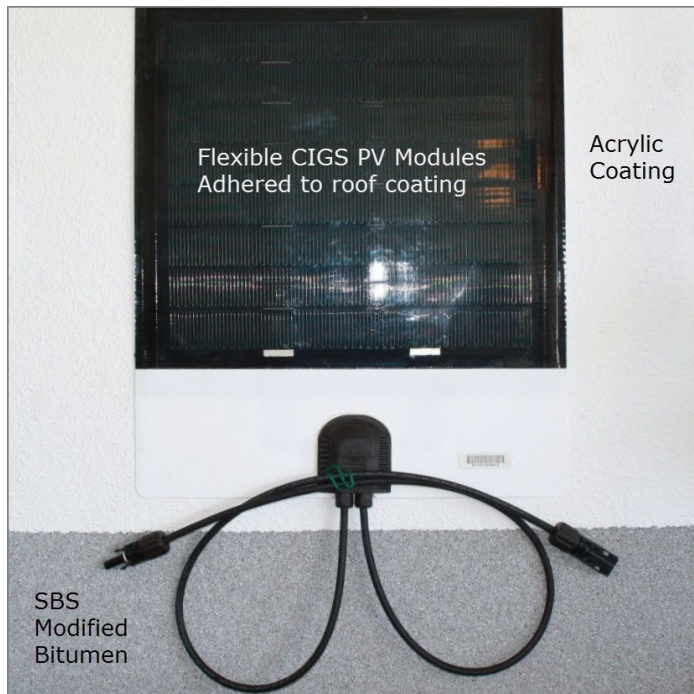
SolarSeal PV Roof System™

APP & SBS Modified Bitumen Systems

Current flexible thin film solar modules have a functional power production life of 25-30 years. Flexible building integrated PV modules once bonded onto the roof substrate are difficult to remove without damaging the solar module and roof membrane. At a minimum, the new or existing roof system should have a matching service life.

While it is possible to choose, and design a new roof system to last 30-years. What do you do on an existing modified bitumen roof system with a remaining service life less than 30-years? SolarSeal Technologies has a simple solution. Apply an elastomeric coating to the roof surface. Then bond the flexible thin film solar module to the coated roof surface. When the first coating warranty is over, recoat around the solar modules and extend the roof service life. In effect, you are now synchronizing the roof service life with the solar modules. Butyl self-adhesive manufacturers recommend coating new modified bitumen roofs prior to installing flexible modules.

SolarSeal Technologies Patented Application Options



1. Strip in seams – 3-course fabric & coating.
2. Apply an elastomeric base coating to the roof surface and allow coating to dry/cure.
3. Using the factory applied peel-n-stick self-adhesive, bond the flexible thin film PV modules to the coated roof surface.
4. Apply the finish coat around the modules and the rest of the roof.

Option 1:

1. Applied two or more elastomeric roof coatings to the roof and allow coatings to cure.
2. Using the factory applied peel-n-stick self-adhesive, bond the flexible thin film PV modules to the coated roof surface.
3. Apply a finish coating with optional fabric around module perimeter to form a watertight perimeter edge.

- ✓ Elastomeric roof coating lock in the surface mineral granules on modified bitumen membranes creating a smooth stable adhesive substrate to bond flexible thin film PV modules.
- ✓ Elastomeric coatings seals surface granules eliminating water and moisture infiltration under the PV module.
- ✓ By three coursing field seams with coating and fabric prior to applying the elastomeric top coating, large format flexible PV modules can be used and adhered over the roof system's field seams increasing the solar power density on the roof, lowering overall cost.
- ✓ SolarSeal Technology is compatible with the following flexible CIGS solar modules: Miasole®, Global Solar®, Dow FlexsoLyt™ and SoloPower®.
- ✓ Acceptable coatings: Polyurethane (Aromatic Base Coat & Aliphatic Finish Coat), Acrylics (6083), PMMA.

US Patents 2010 - 7,666,466 US 2013 - 8,372,226 and pending patents