

## Use of Rooftop Slip Sheets with clawFR® and clawFRplus™

Slip sheets may be mandated or recommended by roof membrane manufacturers, insurance companies, or building owners due to general concerns about:

1. The risk of membrane punctures from sharp racking components.
2. Incompatibility of racking roof pads (if present) with the membrane.
  - a. Membrane manufacturers typically require slip sheets matching the brand name of the membrane.
  - b. PVC roofs pose a special challenge due to potential plasticizer migration.
3. Long term wear and abrasion of roof membranes due to thermal expansion and contraction of the PV system.

clawFR and clawFRplus “Bases” have integrated pads specifically designed to protect the roof from metal edges, limit abrasion of the roof membrane over the life of the PV system (typically 25 years), ensure a high coefficient of friction, and facilitate natural water flow through the system. The pads are chemically compatible with all roof membrane types (see attached Technical Specification for additional information).

Some rooftop solar projects make use of a widely accepted design methodology which allows small, seismically induced array movements over time. The built-in roof protection features enable safe deployment of these designs by ensuring continuous roof membrane protection.

Roof assemblies and PV systems expand and contract because of temperature variations. To mitigate thermal expansion and contraction of the racking structure on the roof, PanelClaw recommends maximum array dimensions of approximately 80 feet on roof slopes 3 degrees and greater. Where the roof slope is less than 3 degrees, array dimensions up to 150 feet are possible. clawFR and clawFR plus are constructed with steel components and absorb PV module frame expansion and contraction, thus preventing the aluminum frames from affecting the overall thermal behavior of the system. Given these facts, PanelClaw feels slip sheet usage is generally unnecessary and redundant to the built-in, protective attributes of its racking products. Always consult with the building owner, membrane manufacturer, and insurance company to determine whether slip sheets are recommended or required to maintain roof warranties. PanelClaw will work with system owners and membrane manufacturers to explain clawFR and clawFRplus roof protection features and share any available data to help eliminate or reduce slip sheet requirements.

## clawFR and clawFRplus Integrated TPV Roof Protection Pads

For technical information on clawFR roof protection pads, download the “Sarlink Data Sheet\_clawFR Roof Protection Pad Material.pdf” file from our Technical Library.



clawFR and clawFRplus Base

### About PanelClaw:

PanelClaw is a global expert focusing primarily on flat roof PV structures. The company is headquartered north of Boston, Massachusetts and has gigawatts of experience designing and engineering flat roof structures in over 30 countries around the world. For more information, contact [sales@panelclaw.com](mailto:sales@panelclaw.com)