How are Arc Flash Thermographer's Gloves used??

The more important question may be "How are they **NOT** used?"

Arc Flash Thermographer's gloves are manufactured of fabric that has been tested according to ASTM F1959 in the Kinectrics High Current Laboratory to provide protection against the heat energy of an Arc Flash incident. Like the Arc Flash garments that are used in this application, the fabric is Flame Resistant and provides some level of insulating protection against the arc flash energy. Again, like the Arc Flash suits, they are rated to reflect the level of protection offered (either ATPV or E_{BT}).

Arc Flash Gloves are NOT manufactured of rubber. As such, they do not provide shock protection against voltage. They should not be used within the Prohibited Approach Boundary as defined by NFPA 70E where there is the risk of contact with voltage due to proximity to the energized circuit. Within this space, only Rubber Electrically Insulating Gloves should be used to protect the worker from accidental electric shock.

Further, Arc Flash Thermographer's Gloves are not typically used as an alternative to Leather Protectors. Leather Protectors are worn over Rubber Insulating Gloves to protect the rubber gloves from accidental puncture. Even the smallest of puncture can provide an avenue for the voltage to penetrate the glove and contact the worker. These Thermographer's Gloves are manufactured of a woven fabric, which will provide virtually no protection from puncture. Leather is a dense material that resists and decreases the likelihood of puncture. Arc Flash fabric is typically a woven material with many "spaces" in between the woven yarns.

Arc Flash Thermographer's Gloves are promoted to workers working outside of the Prohibited Approach Boundary, within which there is a risk of contact with voltage due to proximity to the voltage, but within the Arc Flash Protection Boundary. Within this Boundary around the energized circuit, there is the risk of burn injury from an Arc Flash incident. A thermographer is often working within this space. In the process of their review of a system, which is typically energized, they direct their Infrared Thermography Cameras at the panel from varying distances from the system. Depending upon the Arc Flash Hazard posed by the system, based upon a hazard analysis, they are wearing Arc Flash protection perhaps from a simple HRC2 (8 calories) up to ORC7 (140 calories). The highest arc flash hazard of any Thermographer I have spoken with was

on an offshore oil rig in the Gulf of Mexico. His potential exposure level was estimated to be 1800 calories!! This very high level of hazard requires the equipment to be de-energized since there is no PPE available that can protect against this level of exposure. Since the thermographer is working outside the Prohibited Approach Boundary, he does not require the electrical insulation/ shock protection, but he can not work with exposed hands. The worker still requires thermal protection for his hands because he is working within the Arc Flash Protection Boundary. The use of Thermographer's gloves at a level consistent with the arc flash suit he is using and consistent with the recommendations of the hazard study would be appropriate.

Additionally, in large industrial or utility settings, racking breakers is an additional application where Arc Flash Thermographer's Gloves are often used. The worker is racking in or out large breakers. The worker is isolated from the voltage by the distance of the breaker, so there is limited risk of shock. However, he is within the Arc Flash Protection Boundary, requiring protection against the thermal energy of an Arc Flash. The Thermographer's gloves can be a suitable alternative to bulky rubber electrical gloves and leather protectors, providing more comfort and better dexterity, while still providing the protection required in this application.

Oberon offers Arc Flash Gloves:

HRC2* (15 calories)

HRC3 (25 calories)

HRC4 (40 calories)

ORC5 (65 calories)

ORC6 (100 calories)