

Rogers' BISCO® HT-800 Silicone Provides High-Humidity Seal for LED Lighting Manufacturer

General Industrial

Customer Problem

A manufacturer of specialized LED lighting for greenhouse applications was experiencing an issue – how best could they keep moisture from entering the electronic components of their lights? Since the greenhouse environment in which the lights operate often has a high level of humidity (sometimes as high as 90%), corrosion can be an issue when a seal fails to keep out moisture. The scenario called for a material that could act as a water-tight barrier for an extended period of time and be able to do so on surfaces of the light made uneven by spray casting. Multiple tests with many different cell rubbers and EPDM materials failed to achieve a desired level of seal as it related to water tightness, longevity, or both.

The Rogers Solution

Rogers' BISCO® HT-800 silicone material easily met all of the manufacturer's requirements. The material's ability to conform around uneven surfaces allowed it to seal where gaps were present between the light's housing and end cap structures. In addition, its long-term performance and durability ensured that if the enclosure was opened and closed for service, the seal would remain water-tight, maintaining its integrity over the long term.

Result

By choosing Rogers' BISCO HT-800 silicone material the light manufacturer can rest assured that the internal components of their innovative LED light will not succumb to damage from greenhouse environmental humidity. For end-users, greenhouse operators can expect higher vegetative output from the new technology and employees who are able to focus efforts on their work as opposed to fixing lighting failures in the workplace.