

## APPLICATION SUCCESS STORY



# ROGERS PARTNERS WITH CHINESE OEM ON AUTOMOTIVE BRAKE LIGHT GASKET

## Rogers' BISCO® Silicone Material Seals Against Moisture Ingress

### CUSTOMER PROBLEM

An automotive OEM located in China was faced with a challenge - what material would offer the best performance in a sealing gasket on a car brake light? An automobile manufacturer had identified an issue with water leaking into the brake light of one of its models, causing short circuits and potentially a fire. The deterioration of the EPDM material originally used to seal around the brake light caused the leakage. As the material aged, its capacity to seal out moisture significantly decreased. Once water entered the brake light housing it flowed downward to the light's battery located directly beneath the brake light module. At a minimum it would cause a short circuit, in a worst case scenarios it could cause a fire.

### THE ROGERS SOLUTION

Rogers' automotive sales team in Asia recommended the use of several BISCO® silicone materials. The selected material would have to pass two stringent tests conducted by the OEM; a water-tight test and an assembly test. In the water-tight test the material was attached to the brake light housing with a jig, compressed at a rate of 60% - 70%, at 7 KPA, and submerged in half a meter of water. An air bubble escaping from the sidewall of the housing would signify leakage, and ultimately the failure of the material. The assembly test consisted of using the proposed material in the brake light module itself, attaching it to the body of the car, and measuring gap tolerances. BISCO® HT-800 silicone easily passed both tests - no air bubbles were found in the water-tight test, and gap tolerances were well within satisfactory ranges.

### RESULT

The OEM chose Rogers' BISCO HT-800 silicone over five other material options (among them EPDM and rubber materials), assured that the material will provide reliable, long-term performance. The OEM also chose to add HT-870, another of Rogers' silicone formulations, to its material list - a strong testament to the quality of Rogers' materials. The news is spreading; officially approved by this well-respected OEM, Rogers materials are being increasingly sought after by various major players in the Chinese automobile industry.

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