



APPLICATION SUCCESS STORY

DIE-CUT COMPONENT MANUFACTURER AND ROGERS SOLVE LAPSE IN CAMERA COVERAGE PROBLEM

Rogers PORON® Polyurethane Foam Protects from the Elements, Reduces Vibration, and Streamlines Production

CUSTOMER PROBLEM

Marian, Inc., a manufacturer of precision die-cut component parts, had to rethink their production of a customer's outdoor camera system. Harsh environments, in which wind, dust, rain, snow, ice, humidity and extreme heat are commonly found, require that outdoor camera systems be designed to withstand the rigors of their surroundings. The original gaskets used in the system were made of dense closed-cell foam and used acrylic foam tape as a sealing and bonding mechanism. They were failing, not only as a result of prolonged exposure to extremes of temperature and moisture, but also due to constant vibration by the wind. The closed-cell foam and tape originally used in the design could not isolate vibrations from the wind, so the camera lenses began to crack. This caused lapses in camera coverage and, as a result, the product and brand reputation with consumers suffered. In addition, the use of the acrylic foam tape made the manufacturing process of the current product difficult and time-consuming, increasing production costs and reducing profits.

THE ROGERS SOLUTION

Rogers collaborated with Marian to create the perfect solution using PORON 4701-40 formulation polyurethane foam. Engineers created a gasket with zone laminated double sided adhesive die-cut to the specific shape required and provided on a roll, which streamlined the manufacturing process. The open-cell formulation of PORON material provided performance superior to the material used in the previous lens gasket. Its vibration damping and shock absorption properties enabled the gasket to withstand prolonged exposure to extreme temperatures, moisture and wind without cracking.

RESULT

The PORON open-cell polyurethane foam gasket provided the vibration damping and shock absorption that prevented cracking in the camera lens, thereby reducing camera failures and down time. Not only does the gasket provide protection from the elements, its excellent compression set resistance enables long term performance, extending the life of the gasket and reducing the need for replacement. In addition, by providing a zoned adhesive on the material, Marian makes the assembly process fast and easy, saving time and money in labor while reducing wasted material. Consumers have immediately seen reduced failures, reinforcing Marian's long-standing reputation for quality and durability.



Elastomeric Material Solutions

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