

### CUSTOMER

Developer & Manufacturer of  
Medical Devices

### PART

Laminated Foam Tape

### MATERIAL

Sekisui Voltek Volara<sup>®</sup>,  
Rogers Corp PORON<sup>®</sup> Foam  
Both are 3M Double Coated  
Tape

### MARIAN ADVANTAGE

Marian's precision slitting and  
laminating capabilities

### CHALLENGE

The customer's medical device utilizes two types of foam pads for spacing, cushioning and proper fit of test trays within an analytical device. Both foams have pressure sensitive adhesive (PSA) laminated to one side. The customer's assembly process is automated, requiring rolls that are 100 linear feet without splices or flaws in the foam or PSA. Slit widths are critical and held to very tight tolerances (as close as +/- .01"). And the slit edges must be cut clean and perpendicular (without slant). All product must be free of debris or dust.

### SOLUTION

Marian listened to the customer and fully understood their manufacturing process and material requirements. The Volara<sup>®</sup> Foam, cross-linked polyethylene foam, was chosen for its purity and white appearance. The Poron<sup>®</sup> Foam was chosen for its consistency in cell structure and Compression Force Deflection (CFD). Competing foams have too much variance in cell size, contain gaps or air pockets, and vary too greatly in CFD. Too great a variance in CFD could cause failure in the medical device. The Medical Grade 3M adhesive was chosen for its bonding strength to both the foam and plastic surfaces of the customer's device.

Marian engineers have developed advanced techniques in precision slitting that sets them apart from other material converters. Marian provided slit rolls of foam tape that met the length and width tolerances. The material was free of splices, wrinkles and debris. Additionally, Marian created packaging (reels) for the foam tape rolls that made the material easier to handle in the customer's automated process. Each roll/reel is individually bagged and labeled to ensure cleanliness.



### CUSTOMER BENEFITS

The final products produced by Marian met tight width tolerances, edge quality requirements, length requirements and contained no splices, wrinkles or debris. This gave the customer confidence in the high quality of the final material and its ability to perform in the critical application of their device.