ANALYTICAL INSTRUMENTATION

Foam and Sponge Enclosure Gaskets
Analytical Instruments often require compressible door and panel gaskets to maintain environments inside chambers to ensure testing validity. Technical design requirements are often solved with fabricated Poron® cellular urethane and low out-gassing silicone foam gaskets. Samples are prototyped in various material densities and thicknesses by water jet cutting to validate the proper closures.

Molded Sealing Gaskets
Molded low durometer silicone (10, 20 and 30 durometer Shore A) gaskets provide a performance advantage over foam or sponge materials for easily compressed enclosure gaskets requiring superior sealing. Designs utilizing engineered plastic housings are attractive and cost less than metal housings. However, the available closure forces may be reduced due to hinge limitations and latch constructions, thereby requiring soft sealing gaskets. The key benefit to the use of a soft silicone molded sealing gasket is the option to incorporate sealing beads or round cross sections into the design to enhance sealing with low closure forces.

Fluoropolymer seals are molded for systems inside the instrument requiring chemical inert properties. Fluoropolymer sealing gaskets are often molded rather than fabricated to save on material cost, and custom molding permits round cross sections to improve sealing properties.

Electrical and Thermal
Design requirements for manufacturers of analytical instrumentation also include EMI shielding gaskets around display panels fabricated from electrically conductive silicone rubber or metallized coated fabrics to guard instruments against electro-magnetic interference in laboratory environments. Thermal interface pads may be needed to cool critical electronic components from excessive heat build-up.

The Analytical Instrumentation industry utilizes a broad cross section of Stockwell Elastomerics' materials and production capabilities. Testing chambers operate from extreme cold to very hot and chemical resistance is needed, testing the limits of material capabilities. We welcome the opportunity to be put to the test on your next project for high performance gaskets.