

PORON® Urethane Foams

INDUSTRIAL SALES BULLETIN

December 2005

PORON[®] Soft Seal Urethane Foams Outperform Competition In Compressibility and Conformability

As new cell phones and other handheld devices are integrating additional high-tech components, the electronics design industry is demanding more from gasketing and sealing materials. Foam gaskets must be highly compressible while exerting the least amount of stress within the device. PORON® Soft Seal Urethanes provide premium softness and high compressibility while maintaining material integrity. The Stress vs. Strain graph below displays PORON Soft Seal's superior compressibility as compared to a competitor's popular sealing and gasket offerings.



PORON Soft Seal Urethanes are able to withstand a high strain percentage like that of the competitor, but Soft Seal material requires considerably less force to do so. Within typical force conditions (a force exertion of less than 10 psi), PORON Soft Seal urethane is the most compressible option.

A material's ability to be compressed is essential when fitting in small gaps and protecting sensitive electronics, but one of the important gasket functions is to seal out potentially harmful dust and particulate matter. For many applications visible dust penetration would ruin aesthetics, or could even damage electronics over a period of time. Gasket materials must be able to conform to curves in order to provide a tight seal. The included photos (reverse side) show how PORON Soft Seal material is able to conform around a 0.3mm high corner, while the competitor's material leaves a significant gap that would allow for possible dirt infiltration.

Conformability Comparison Photos





In the current handheld electronics design markets, gasket and sealing materials are required to perform at high standards. Under equal conditions, PORON Soft Seal urethanes are noticeably better at filling in the complete area of the curve, highlighting that PORON Soft Seal urethane is the ideal choice for dust seal applications.

The information contained in this bulletin is intended to assist you in designing with Rogers PORON Urethane Foams. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown in this bulletin will be achieved by a user for a particular purpose. The user is responsible for determining the suitability of Rogers PORON Urethane Foams for each application.