



Rogers PORON® Polyurethane Protects a Delicate Product Component in Medical X-Ray Machines

Customer Problem

A critical part of an X-ray flat panel detector is its fragile thin-film-transistor (TFT) glass component. The purpose of this part is to improve the imaging quality by increasing the accuracy and sensitivity of the digital image generated by the X-ray machine. Many hospitals and clinics now use portable X-ray machines to conveniently serve their patients. However, a portable X-ray machine requires additional increased protection for the TFT glass via a material with sufficient shock absorption capabilities to avoid accidental damage when the equipment is maneuvered, whether it be the glass moving against the body of the machine or the machine being bumped or dropped during handling. For one X-ray machine manufacturer, a low-grade polyurethane foam was not providing the robust shock protection required to sufficiently protect the delicate and costly TFT component for the lifetime of the machine.

The Rogers Solution

Rogers' PORON® 79RL-20012 polyurethane material emerged as an excellent choice for this application. Unlike the material previously used, the PORON material had the necessary force impact absorption and cushioning properties sought by the manufacturer of the machine. Known for its long-term durability and reliable performance, the manufacturer could confidently rely on the superior protection the PORON foam provides to the X-ray machine for the lifetime of the device.

Result

PORON 79RL-20012 high-grade polyurethane foam was implemented in each X-ray flat panel detector, giving the equipment's delicate TFT glass a strong protection against damage from rigorous daily handling. PORON polyurethane material combines exemplary performance with long-term reliability to both aid medical professionals in delivering care on a daily basis and uphold the manufacturer's well-earned reputation for producing highly reliable products.

Learn more about [PORON® Back Pad material](#) and applications in the [medical market](#).