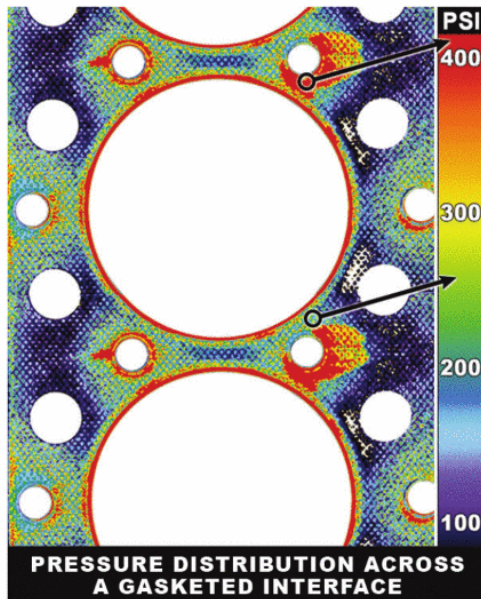


Making An Impact On Pressure Sensing



Sensor Products' Pressurex calculates surface pressure by creating an instantaneous color profile. The varying color intensities correlate to pressure ratings such as in this gasket assembly, where it can be used to illustrate how surfaces engage and deform under stress — displaying sealing flaws and inconsistencies.

During the design process it is often necessary to calculate the distribution and magnitude of pressure between two contacting, mating or impacting surfaces. Oftentimes these surfaces are not easily accessible, making it difficult to take proper impact measurements.

To ensure that accurate readings can be taken between pressure points, Sensor Products Inc. has developed Pressurex, a sensor film that slides between surfaces and creates a pressure profile. The company said it is ideal for the design, manufacturing and inspection of brake pad assemblies, bolted joints, clamps, composite lay-up, connectors, fuel

cell stacking, gaskets, heat sealing and ultrasonic welding, heat sinking, impact studies, lamination, LCD and flat panel displays, presses, printed circuit boards, sprays, tire treads and wafer polishing.

Pressurex comprises a 4, 8 or 20 mil. Mylar-based film containing a layer of microcapsules. When force is placed upon the film, the microcapsules rupture and create a topographical image that displays pressure variations across the contact area. The color intensity of the profile correlates to the amount of pressure applied to the surface, with a darker color intensity representing a higher pressure level.

For gasket and O-ring seal assemblies, Pressurex is designed to illustrate interfacial contact by showing how surfaces engage and deform under stress, creating sealing flaws and inconsistencies. In hydraulic and pneumatic applications, Pressurex can be used to diagnose current and potential leakage areas in fittings, couplers and connectors.

Sensor Products offers Pressurex in pressure ranges from 2 to 43,000 psi in micro, ultra-low, super-low, low, medium, high and super-high grades. It has an operating temperature of 41° to 95°F and can be formed to curved surfaces. The film has a one-time use and is disposable.

Sold as thin, flexible plastic sheets, Pressurex is cut to the precise dimensions of the measuring surface and placed between the contacting areas. The color profile is instantaneous when pressure is applied and permanent, said Sensor Products.

Sensor Products is headquartered in Madison, N.J., where it supplies off-the-shelf and custom tactile surface pressure and force sensors. Its portfolio includes a range of analog products, electronic pressure indicators, optical imaging systems and microencapsulating paints. **dp**

TO REQUEST MORE INFORMATION ON THIS COMPANY

