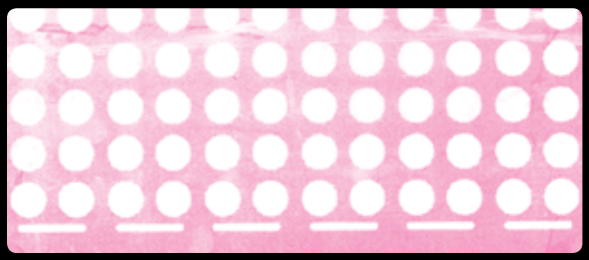
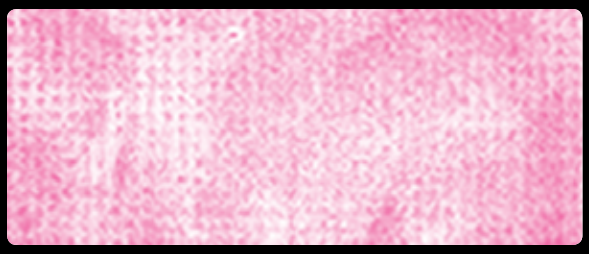


HEAT SEALING

Non-uniform Platen Contact / Parallelism Issues

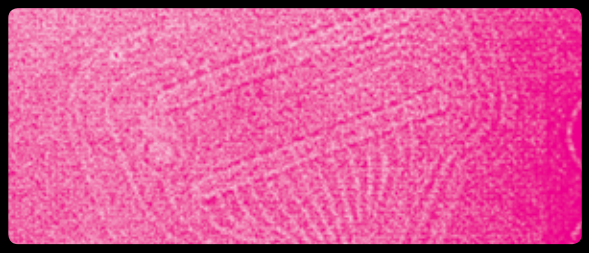
GASKETED INTERFACE

Uneven / Insufficient Loading



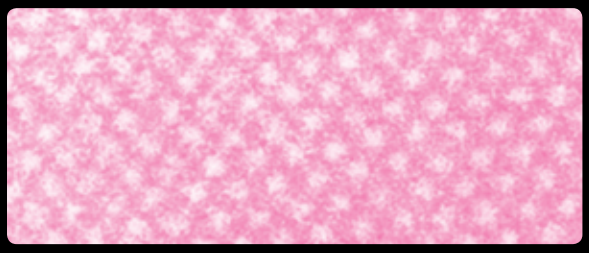
HEAT SINK

Insufficient / Problematic Thermal Transfer



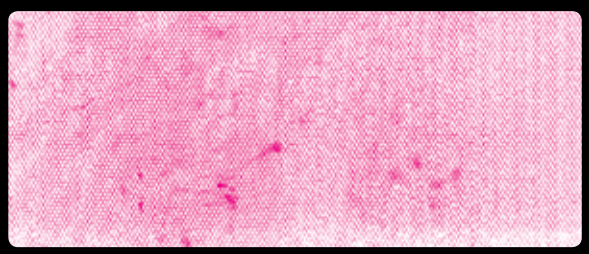
LAMINATION/PRESS

Platen Planarity Problems



NIP IMPRESSION

Roller / Nip Defects, Parallelism / Crown Correction Problems



COMPOSITE LAYUP

Registration / Parallelism / Planarity Issues

Pressurex®

TACTILE PRESSURE INDICATING SENSOR FILM

Pressurex® is a unique, affordable and easy to use tool that reveals the distribution and magnitude of pressure between any two contacting, mating or impacting surfaces.

How It Works

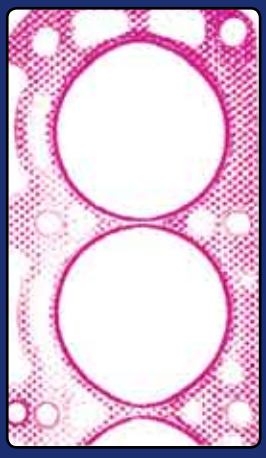
Pressurex® is a mylar based film that contains a layer of tiny microcapsules. The application of force upon the film causes the microcapsules to rupture, producing an instantaneous and permanent high resolution "topographical" image of pressure variation across the contact area.

Simply place Pressurex® pressure indicating sensor film between any two surfaces that touch, mate or impact. Apply pressure, remove it and immediately the film reveals the pressure distribution profile that occurred between the two surfaces. Conceptually similar to Litmus paper, the color intensity of Pressurex® is directly related to the amount of pressure applied to it. The greater the pressure, the more intense the color.

Pressurex® is extremely thin (4 to 8 mils) which enables it to conform to curved surfaces. It is ideal for invasive intolerant environments and tight spaces not accessible to conventional electronic transducers.

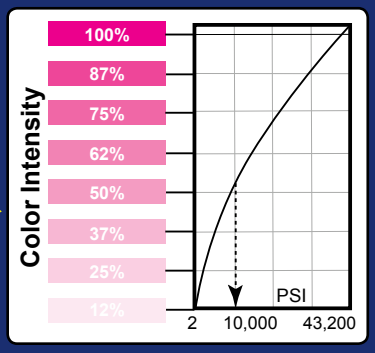
HOW TO INTERPRET PRESSUREX® IMPRESSIONS

1



Pressure variation across a flange surface

2



Color intensity reveals precise pressure magnitude.

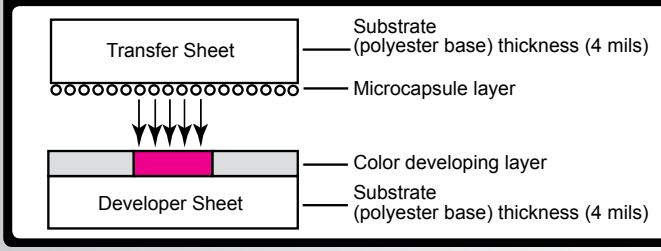
Like Litmus paper, the color that Pressurex® sensor film turns has significance. It is directly related to PSI (kg/cm²), and can be visually compared to our color correlation chart or scanned and quantified with one of our optional optical imaging systems.

Tactile Pressure Indicating Sensor Film

Accurate, Cost-effective, Easy to Employ Pressure Mapping Technology

Have you ever needed to evaluate pressure or force between two touching or mating surfaces? Previously, your only alternatives were strain gauges and load cells, that are both time consuming and difficult to interface. Now with the advent of our disposable one-time use pressure film, Pressurex®, evaluating surface contact pressure distribution and magnitude is accurate, quick and highly economical.

CROSS SECTIONAL VIEW OF PRESSUREX® FILM



7 Sensitivities To Accommodate A Wide Range Of Pressures

FILM TYPE	PRESSURE RANGE	
MICRO*	2 - 20 PSI	(0.14 - 1.4 kg/cm^2)
ULTRA LOW	28 - 85 PSI	(2 - 6 kg/cm^2)
SUPER LOW	70 - 350 PSI	(5 - 25 kg/cm^2)
LOW	350 - 1,400 PSI	(25 - 100 kg/cm^2)
MEDIUM	1,400 - 7,100 PSI	(100 - 500 kg/cm^2)
HIGH	7,100 - 18,500 PSI	(500 - 1,300 kg/cm^2)
SUPER HIGH	18,500 - 43,200 PSI	(1,300 - 3,000 kg/cm^2)

** Shows relative pressure distribution only*

INDUSTRY APPLICATIONS

AEROSPACE	Composite Layups, Material Testing, Bolted Joints
AUTOMOTIVE	Gasketing, Impacts, Fuel Cell Stacking, Clutches, Brakes, Tire Tread
ELECTRONICS	Heat Sinks, LCD Bonding, PCB Lamination, Wafer Bonding/Polishing
MEDICAL	Clamping, Gait Analysis, Ergonomics, Orthotics and Prosthetics
PACKAGING	Heat Sealing, Converting
PLASTICS	Lamination Press, Die Extrusion Injection Molding, Stamping
PRINTING/ PAPERMAKING	Nip Impressions

PHYSICAL SPECIFICATIONS

OPERATING TEMPERATURE	41°F to 95°F (5°C - 35°C) (much higher for brief exposure)	SUBSTRATE	Polyethylene Terephthalate (PET)
HUMIDITY RANGE	20% to 90% RH	ACCURACY	±10% visual, ±2% utilizing optional optical measurement systems
GAUGE	4, 8, or 20 mils	SHELF LIFE	2 years
SPATIAL RESOLUTION	5 to 15 microns		

MSDS Available Upon Request.

TACTILE PRESSURE EXPERTS
SPI
SENSOR PRODUCTS INC.

Sensor Products Inc.
300 Madison Avenue
Madison, NJ 07940 USA
Phone: 1.973.884.1755
Fax: 1.973.884.1699
www.sensorprod.com

Pressurex®