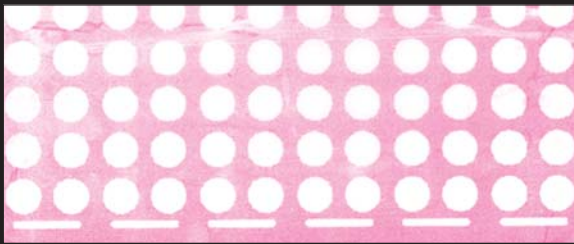
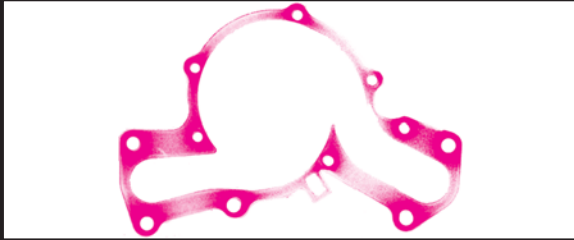


TACTILE PRESSURE INDICATING SENSOR FILM



HEAT SEALING

Non-uniform Die Contact / Parallism Issues



GASKETED INTERFACE

Uneven / Insufficient Loading



HEAT SINK

Insufficient / Problematic Thermal Transfer



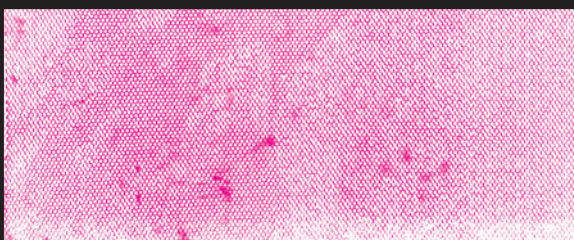
LAMINATION/PRESS

Platen Planarity Problems



NIP IMPRESSION

Roller / Nip Defects, Parallelism / Crown Correction Problems



COMPOSITE LAYUP

Registration / Parallism / Planarity Issues

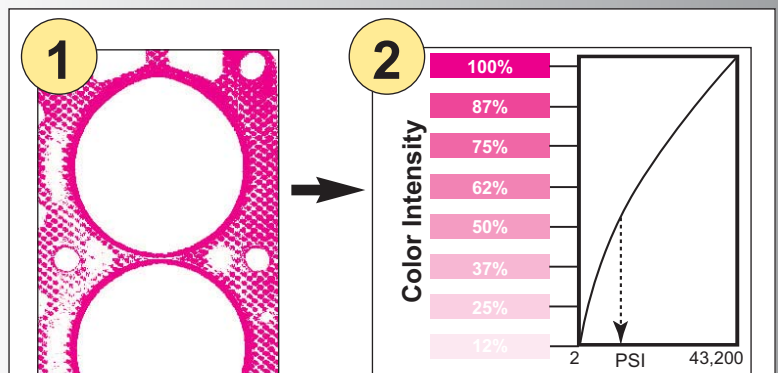
Pressure^x[®] is a unique, affordable and easy to use tool that reveals the distribution and magnitude of pressure between any two contacting, mating or impacting surfaces.

Pressure^x[®] 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 It Works

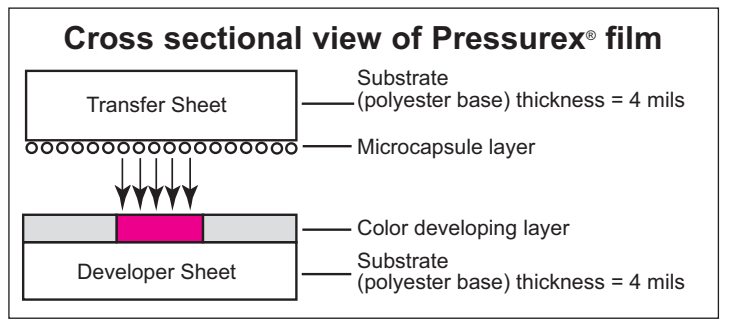
Pressure^x[®] is a mylar based film that contains a layer of tiny microcapsules. The application of force upon the film causes the microcapsules to rupture, producing an instantaneous and permanent high resolution "topographical" image of pressure variation across the contact area.

Simply place Pressure^x[®] 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. Like Litmus paper, the color intensity of Pressure^x[®] is directly related to the amount of pressure applied to it. The greater the pressure, the more intense the color.



Pressure variation across a flange surface

Like Litmus paper, the color that Pressure^x[®] sensor film turns has significance. It is directly related to PSI or 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, Pressure^x, evaluating surfaces contact pressure distribution and magnitude is accurate, quick and highly economical.

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

MSDS Available Upon Request.

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

7 Sensitivities To Accommodate A Wide Range Of Pressures

FILM TYPE	PRESSURE RANGE
MICRO <i>(Shows relative pressure distribution only)</i>	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)



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