

# TACTILE PRESSURE INDICATING SENSOR FILM

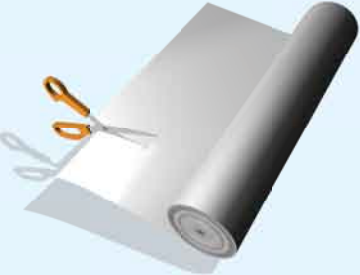
Application: Bolted Joint / Gasket

Pressure<sup>x</sup><sup>®</sup> is a unique, affordable and easy to use tool that reveals the distribution and magnitude of pressure between any two contacting or mating surfaces.

**Example Application** **4 EASY STEPS**

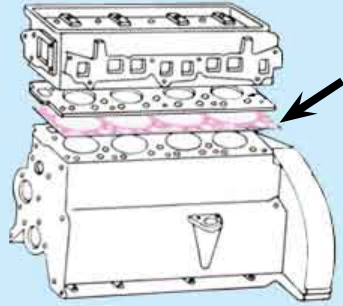
**1**

Pressure indicating measurement film comes on a roll



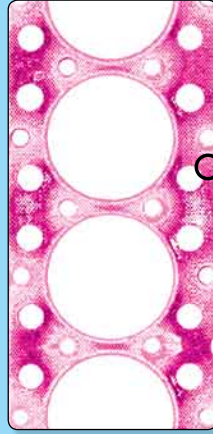
**2**

Place the pressure indicating film between any two bolted joints or gasketed surfaces that come in contact



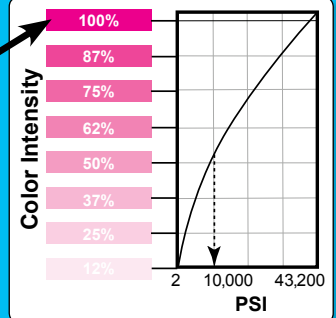
**3**

Pressure<sup>x</sup><sup>®</sup> film captures a permanent image of pressure distribution and magnitude

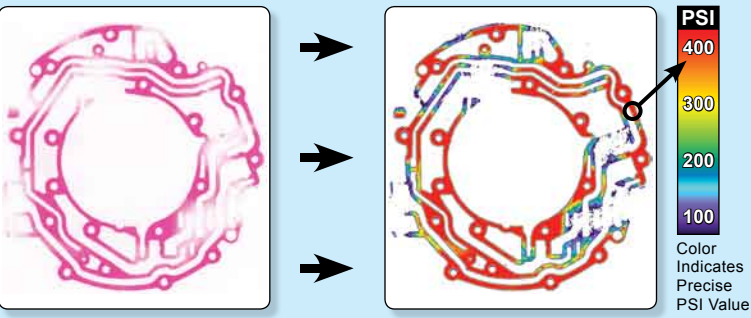


**4**

The color Pressure<sup>x</sup><sup>®</sup> impression film turns indicates the precise PSI level



**Quickly developed<sup>\*</sup>, Pressure<sup>x</sup><sup>®</sup> dramatically reveals a complete pressure "map"**



Color Indicates Precise PSI Value

<sup>\*</sup>Colorization applied with the Topaq<sup>®</sup> optical analysis system

Pressure<sup>x</sup><sup>®</sup> 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<sup>x</sup><sup>®</sup> 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 Pressure<sup>x</sup><sup>®</sup> is directly related to the amount of pressure applied to it. The greater the pressure, the more intense the color.

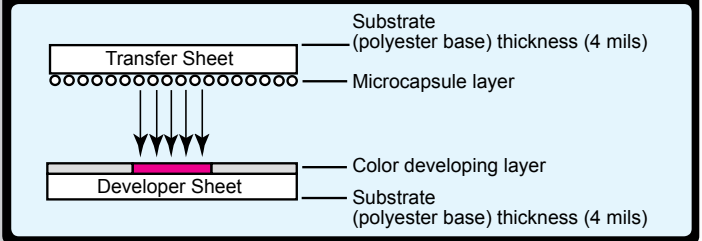
Pressure<sup>x</sup><sup>®</sup> is extremely thin (4 to 8 mils) which enables it to conform to curved surfaces. It is ideal for invasive intolerant environments and tight spaces not accessible to conventional electronic transducers.

# 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

PRESSURE FILM TYPE	PRESSURE RANGE	
Pressurex Micro*	2 – 20 PSI	(0.14 – 1.4 kg/cm <sup>2</sup> )
Ultra Low (LLLW)	28 – 85 PSI	(2 – 6 kg/cm <sup>2</sup> )
Super Low (LLW)	70 – 350 PSI	(5 – 25 kg/cm <sup>2</sup> )
Low (LW)	350 – 1,400 PSI	(25 – 100 kg/cm <sup>2</sup> )
Medium (MS)	1,400 – 7,100 PSI	(100 – 500 kg/cm <sup>2</sup> )
High (HS)	7,100 – 18,500 PSI	(500 – 1,300 kg/cm <sup>2</sup> )
Super High (HHS)	18,500 – 43,200 PSI	(1,300 – 3,000 kg/cm <sup>2</sup> )

\*Relative Pressure Distribution Only.

## PHYSICAL SPECIFICATIONS

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

MSDS Available Upon Request.



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

[www.sensorprod.com](http://www.sensorprod.com)