

# TACTILE PRESSURE INDICATING SENSOR FILM

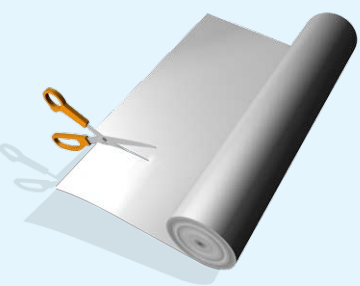
## Application: Biomechanics

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

### 4 EASY STEPS

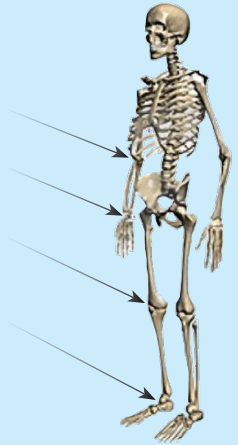
**1**

Pressure measurement film comes on a roll



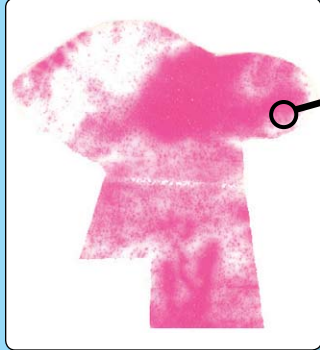
**2**

Place the impression film between any two contacting surfaces



**3**

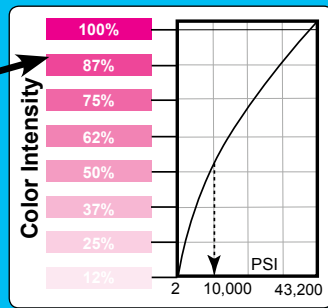
Fujifilm Prescale® captures a permanent image of pressure distribution and magnitude




Example image of wrist joint

**4**

The color Fujifilm Prescale® turns indicates the precise PSI level



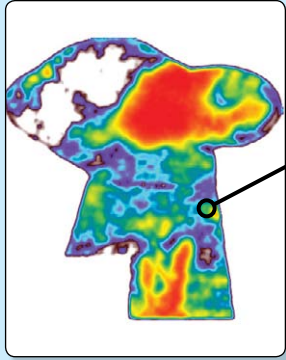
Quickly developed\*, Fujifilm Prescale® dramatically reveals a complete pressure “map”



→

→

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**PSI**

400

300

200

100

Color Indicates Precise PSI Value

\*Colorization applied with the Topaq® optical analysis system

Fujifilm Prescale® 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 Fujifilm Prescale® 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 Fujifilm Prescale® is directly related to the amount of pressure applied to it. The greater the pressure, the more intense the color.

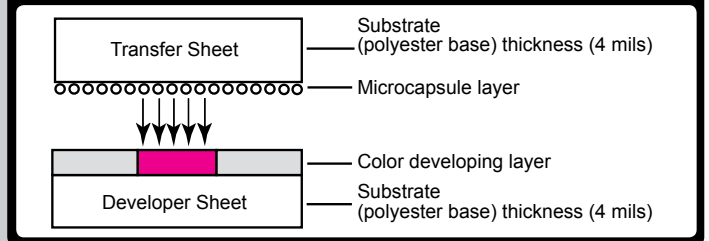
Fujifilm Prescale® is extremely thin (4 to 8 mils) which enables it to conform to curved surfaces. It is ideal for invasive intolerant environments and tight spaces not accessible to conventional electronic transducers.

# 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, Fujifilm Prescale®, evaluating surface contact pressure distribution and magnitude is accurate, quick and highly economical.

### CROSS SECTIONAL VIEW OF FUJIFILM PRESCALE® FILM



## 7 Sensitivities To Accommodate A Wide Range Of Pressures

FILM TYPE	PRESSURE RANGE	
EXTREME LOW	7.2 - 28 PSI	(0.5 - 2 kg/cm <sup>2</sup> )
ULTRA LOW	28 - 85 PSI	(2 - 6 kg/cm <sup>2</sup> )
SUPER LOW	70 - 350 PSI	(5 - 25 kg/cm <sup>2</sup> )
LOW	350 - 1,400 PSI	(25 - 100 kg/cm <sup>2</sup> )
MEDIUM	1,400 - 7,100 PSI	(100 - 500 kg/cm <sup>2</sup> )
HIGH	7,100 - 18,500 PSI	(500 - 1,300 kg/cm <sup>2</sup> )
SUPER HIGH	18,500 - 43,200 PSI	(1,300 - 3,000 kg/cm <sup>2</sup> )

### INDUSTRY APPLICATIONS

<b>AEROSPACE</b>	Composite Layups, Material Testing, Bolted Joints
<b>AUTOMOTIVE</b>	Gasketing, Impacts, Fuel Cell Stacking, Clutches, Brakes, Tire Tread
<b>ELECTRONICS</b>	Heat Sinks, LCD Bonding, PCB Lamination, Wafer Bonding/Polishing
<b>MEDICAL</b>	Clamping, Gait Analysis, Ergonomics, Orthotics and Prosthetics

<b>PACKAGING</b>	Heat Sealing, Converting
<b>PLASTICS</b>	Lamination Press, Die Extrusion Injection Molding, Stamping
<b>PRINTING/PAPERMAKING</b>	Nip Impressions

### 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.



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