PRESCALE

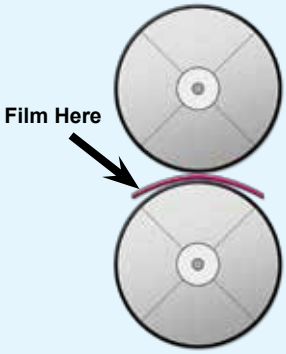
TACTILE PRESSURE INDICATING SENSOR FILM

Application: Nip Impression

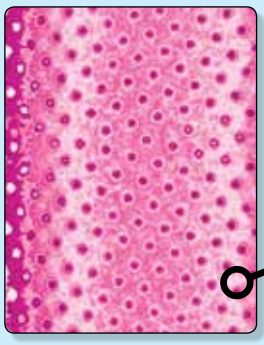
If you have rollers coming in contact it's critical to measure the nip point between those rollers to monitor both parallelism and pressure level.

3 EASY STEPS

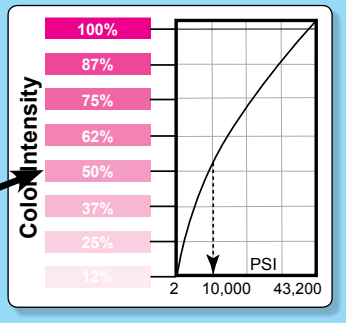
1 Place the nip impression film between any rollers that come in contact



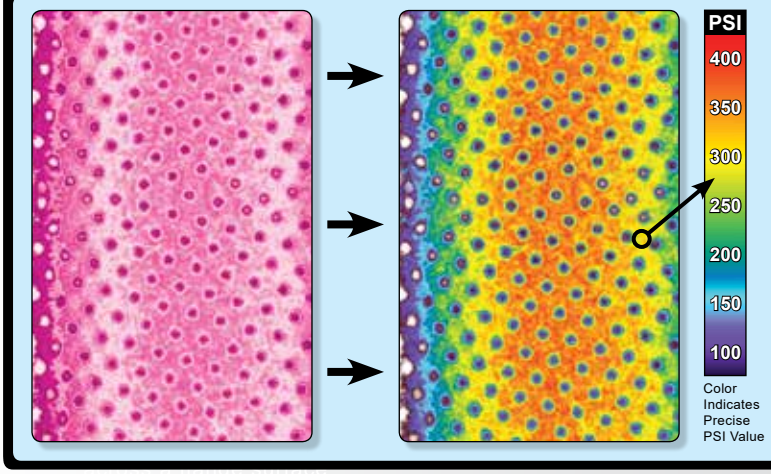
2 Fujifilm Prescale® nip impression film captures a permanent image of pressure distribution and magnitude



3 The color Fujifilm Prescale® nip impression film turns indicates the precise PSI level



Fujifilm Prescale® dramatically reveals a complete pressure "map"



Pseudocoloring performed by the Topaq® optical analysis system

Simply place Fujifilm Prescale® pressure indicating sensor film between your mating rolls. Apply pressure, remove the film and immediately the film reveals a pressure distribution profile that occurred between the two rolls. Conceptually similar to Litmus paper, the color intensity of Prescale® film is directly related to the amount of pressure applied to it. The greater the pressure, the more intense the color.

Benefits

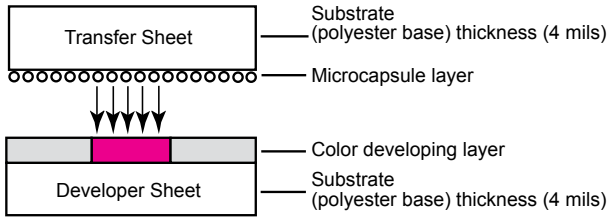
- Reveals roller parallelism & planarity to aid in roller alignment
- Indicates both nip width and nip pressure
- Inexpensive and has an extremely high spatial resolution
- Reveals gaps, flaws and unevenness in the roll surface
- Creates a permanent archival record of your nip profile
- Quantifies exactly how much pressure is occurring between the mating rolls

Tactile Pressure Indicating Sensor Film

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

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.

Cross sectional view of Fujifilm Prescale® film



8 Sensitivities To Accommodate A Wide Range Of Pressures

Film Type	Pressure Range	
ULTRA EXTREME LOW	0.87 - 7.3 PSI	(0.06 - 0.51 kg/cm^2)
EXTREME LOW	7.2 - 28 PSI	(0.5 - 2 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)

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	68°F to 95°F (20°C - 35°C) Extreme low pressure (4LW), Super high pressure (HHS): 15°C - 30°C
HUMIDITY RANGE	35% RH - 80% RH Extreme low pressure (4LW): 20% RH - 75% RH Super high pressure (HHS): 35% RH - 80% RH
SPATIAL RESOLUTION	5 to 15 microns
GAUGE	4, 8, or 20 mils
SUBSTRATE	Polyethylene Terephthalate (PET)
ACCURACY	±10% or less (measured by densitometer at 23°C,65% RH)
SHELF LIFE	2 years

MSDS Available Upon Request.

TACTILE PRESSURE EXPERTS
SPI
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