

Tactile Pressure Indicating Film

Application: Heat Seal

SURFACE[®]
PROFILER FILM

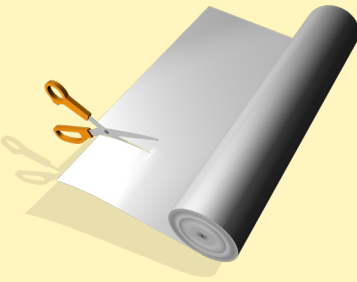
NIST
TRACEABLE!

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

4 EASY STEPS

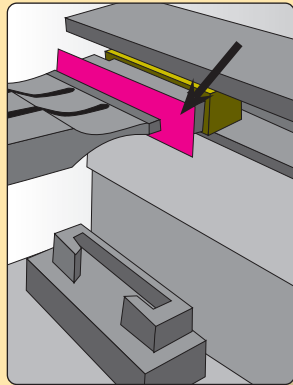
1

Heat seal pressure measurement film comes on a roll



2

Place the heat seal impression film between any two sealing platens that come in contact



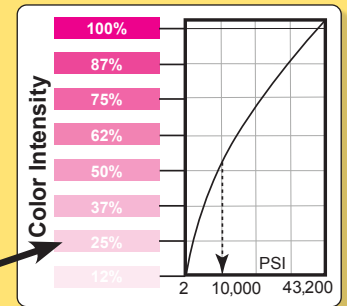
3

Surface Profiler Film[®] heat seal impression film captures a permanent image of pressure distribution and magnitude

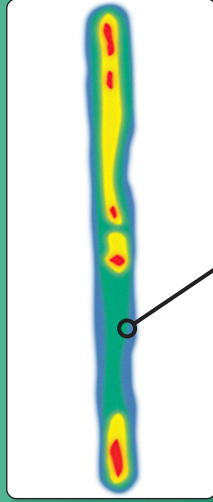


4

The color Surface Profiler Film[®] heat seal impression film turns indicates the precise PSI level



Quickly developed*, Surface Profiler Film[®] dramatically reveals a complete pressure "map"



Surface Profiler Film[®] 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 Surface Profiler Film[®] 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 Surface Profiler Film[®] is directly related to the amount of pressure applied to it. The greater the pressure, the more intense the color.

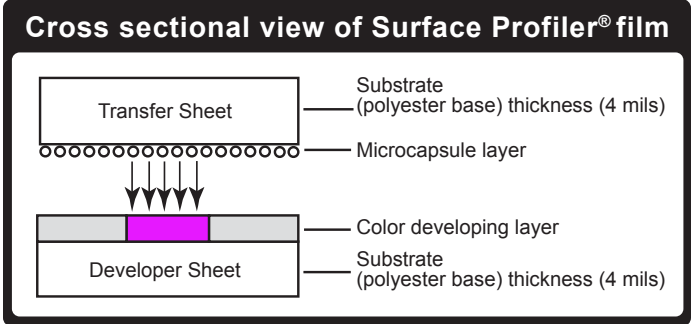
Surface Profiler Film[®] is extremely thin (4 to 8 mils) which enables it to conform to curved surfaces. It is ideal for invasive intolerant environments and tight spaces not accessible to conventional electronic transducers.

*Colorization applied with the Topaq[®] optical analysis system

Tactile Pressure Indicating Film



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, Surface Profiler Film®, evaluating surface contact pressure distribution and magnitude is accurate, quick and highly economical.



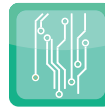
Common Applications



Packaging & Converting:
nip roller impressions, heat sealing, lamination



Automotive:
brake pad, clamping, clutch, battery & fuel cell, impact, gasket/bolted joint, lamination, welding, wiper



Electronics:
heat sink, BGA, connector, lamination, LCD bonding, wafer bonding / polishing, solar cells



Aerospace:
composite layup, fuel cell, lamination, impact, bolted interface



Ergonomics:
biomechanics, body mapping

Type	Pressure Range	
SPF-A	8 – 25 psi	(0.5 – 1.8 kg/cm ²)
SPF-B	20 – 90 psi	(1.4 – 6.3 kg/cm ²)
SPF-C	90 – 380 psi	(6.3 – 26.7 kg/cm ²)
SPF-D	350 – 1,400 psi	(24.6 – 98.4 kg/cm ²)
SPF-E	1,400 - 7,100 psi	(98.4 – 500 kg/cm ²)

Specifications	
OPERATING TEMPERATURE	5°C to 90°C*
USABLE HUMIDITY RANGE	10% to 90% RH
GAUGE	0.19 mm (7.5 mils)
SPATIAL RESOLUTION	2.6 microns
ACCURACY	±10%
SHELF LIFE	2 years
THICKNESS	8 mils (0.2 mm)

*For brief exposure. 35°C for prolonged exposure.



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