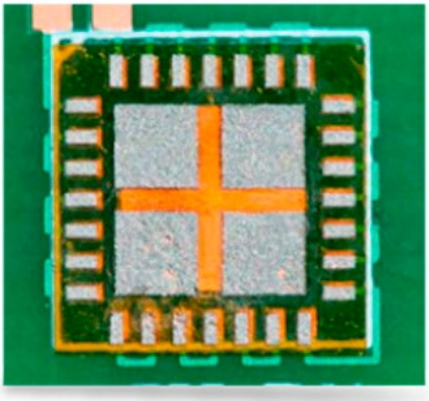
STENCILMATE TECHNICAL DATA SHEET

0.004” STENCILMATE ™ SEMI-PERMANENT PCB STENCILS



General Description

StencilMate™ stencils are made from two layers of clear amber polyimide film with an adhesive backing. It is coated with an aggressive permanent acrylic adhesive and backed with a 50# Kraft release liner. The Stencil-Mate stencils are pre-scored to allow for easy removal of the release liner

Uses

Intended for use as a “remain-in-place” stencil for the application of solder paste or flux on printed circuit boards. The stencil material is designed to withstand high temperatures and harsh chemicals and . Withstand surface mount circuit board processes. This high-performance material is designed for applications requiring excellent solvent and heat resistance. StencilMate™ stencils are designed with a permanent adhesive and they are not designed to be removed after being applied.

Features

Excellent chemical, and heat resistance. The StencilMate™ stencil is dimensionally stable (no shrinkage) with a high-performance adhesive. StencilMate™ stencils have insulative properties in the material and adhesive. The minimum break through voltage (the voltage that will not pass through the polyimide) is 5000 volts. The voltage that will pass through the polyimide material is approximately 7000 volts.

Physical Properties

Description	Material	Convention Units	S.I. Units
Thickness	Polyimide Adhesive Liner (50#) Total	2.0 mils 2.0 mils 3.0 mils 7.0 mils	51 microns 51 microns 75 microns 177 microns
	(Results in a solder print thickness of 0.004”)		
Adhesive Performance	Stainless Steel Fiberglass Phenolic Nylon	72.00 oz/in 28.98 oz/in 29.97 oz/in 40.55 oz/in	790.00 N/m 317.32 N/m 328.17 N/m 444.01 N/m
	(Adhesive performance after a 72 hour dwell)		
Service Temperatures	1-40 minutes 2-4 minutes 1-9 seconds 1-3 seconds	572°F 617°F 842°F 1000°F	300°C 325°C 450°C 538°C

Application Temp.	Minimum	50°F	10°C
Chemical Resistance	Test should be conducted at room temperature after 24 hour dwell. Testing should consist of five cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery periods. Cotton swab rub prior to final immersion. Household Cleaners — No effect Mild Acid — No effect Oil — No effect Water — No effect 1 Part IPA, 1 Part Mineral Spirits — No effect Terpene Defluxer — No effect Toluene — No effect Saponifier — No effect		
Storage Stability	Product should be stored at 70 degrees F (21 degrees C) and 40 – 50% relative humidity to ensure optimal performance.		
Shelf Life	2 Years at the proper storage conditions.		