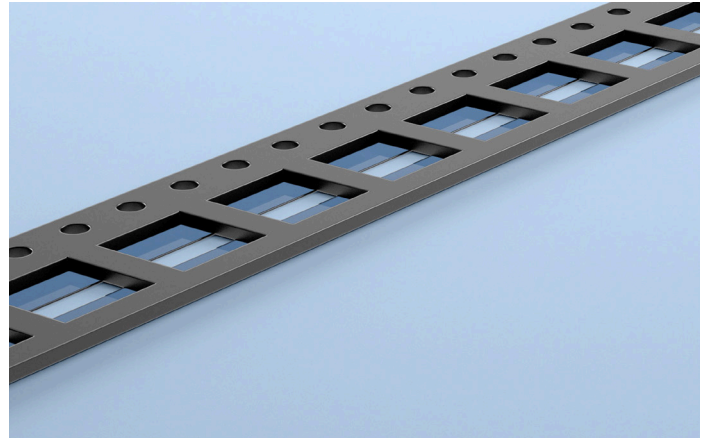


Surftape® is a unique form of punched carrier tape ideal for bare die or small devices where protection and placement are critical. Components are placed on a wafer film backing within a compartment boundary. Unlike conventional embossed tape, the compartment does not have to be sized to the component, eliminating the need for custom carrier tape tooling. Traditional cover tape is also not required. Both elements reduce inventory management costs.

Surftape® is also an excellent solution for shipping prototypes or early production runs. Since Surftape® comes in standard sizes there is no long wait for tape design, custom tooling and manufacturing leadtimes.

- > Ideal for bare die, chip scale packages, MEMs, LEDs, and micro thin components
- > Devices are held safely in place - preventing corners, edges and surfaces from contacting the packing material
- > Wafer film base secures the devices in the exact position they are placed, no theta correction is required
- > One tape size can fit a multitude of component sizes
- > No tooling cost or large minimum order costs
- > Supporting semiconductor industry packaging standards:
 - > EIA 747
 - > EIA 481
 - > IEC 60286-3
 - > JIS C0806



Material Properties

Property	Value	Test Method
<u>Thickness</u>		
Polystyrene Film	0.64 & 0.84mm	-
Adhesive Tape	0.075mm	
Total	0.715 & 0.915mm	
Specific Gravity	1.12g/cc	ISO 1183
Tensile Elongation	40%	ISO 527
Tensile Strength	29 Mpa	ISO 527
Heat Distortion	85°C (185°F)	ASTM D1525
Surface Resistivity	$\geq 10^4$, $< 10^8$ Ohms/Sq	ASTM D257

Note: The values presented for this product are typical laboratory data and may be changed without notice.

Adhesive Tape Material Properties

Property	Value	Test Method
Film Type	PVC Film	-
Adhesive Type	Acrylic-based	-
Impurities Content	<3 ppm	Ion Chromatography
Surface Resistivity (adhesive side)	$\geq 10^{12}$ Ohms/Sq	IEC 60093
Color	Blue Transparent	Visual

Note: The values presented for this product are typical laboratory data and may be changed without notice.

Surftape® Sizes

Part Number	Width / Pitch	Max Device Size
ST84	8mm / 4mm	2.7 x 2.7mm
ST128	12mm / 8mm	5.0 x 5.0mm
ST1612	16mm / 12mm	9.0 x 9.0mm
ST2416	24mm / 16mm	12.5 x 15.0mm

Shelf Life and Storage

Surftape® should be used within 18 months from the date of manufacture. Store this product in its original packaging in a climate-controlled environment where temperatures range from 15°C - 30°C (59°F to 86°F) and with relative humidity 40 - 75%. Allow the product to stabilize at room temperature prior to use.

Camber

The Advantek homogeneous CPS55 polystyrene meets EIA-481-D requirements; not greater than 1mm in 250 linear millimeters.