

# TECHNICAL DATA SHEET

Updated: August 2012 This datasheet replaces all previous versions



## P-223 AMB

### 1-MIL DOUBLE COATED KAPTON® POLYIMIDE FILM

#### PRODUCT DESCRIPTION

P-223 AMB provides outstanding thermal endurance and tensile strength at elevated temperatures. Being double coated, this product is ideal for die-cutting and splices for insulation layers making it ideal to use in the electrical and electronic markets.

#### FEATURES

- Outstanding thermal endurance, thin, conformable yet has excellent puncture and tear resistance.
- Aggressive solvent resistant adhesion & non-corrosive nature permitting use with ultra-fine magnet wire.
- Perfect double coated tape where both surfaces in a laminating/bonding application are silicone treated.
- High dielectric strength permits use in high voltage areas with minimum insulation build-up.
- Available with easily removable polyester inter-liner.

#### PRODUCT CONSTRUCTION

SILICONE ADHESIVE
KAPTON® POLYIMIDE FILM
SILICONE ADHESIVE
LINER

#### APPLICATION

- Performs under continuous high temperature operating conditions with great thermal endurance and tensile strength.
- Often laminated to metal foils to help form pressure-sensitive EMI and RFI shields.
- Ideal for bonding and laminating in many applications that require positive dielectric separation.

#### PROPERTIES, CERTIFICATIONS AND SPECIFICATIONS

<b>Backing Material</b>	1-mil Kapton® polyimide film	
<b>Adhesive</b>	Silicone, cured, inter-lined	
<b>Color</b>	Amber	
	<b>Imperial</b>	<b>Metric</b>
<b>Total Tape Thickness</b>	4.3 mil	0.11mm
<b>Tensile Strength</b>	36 lbs/in	63 N/10mm
<b>Elongation</b>	85%	85%
<b>Adhesion to Steel</b>	41 oz/in	4.5 N/10mm
<b>Dielectric Strength</b>	8,500 volts	8.5kV
<b>Insulation Class CSA</b>	356 °F	180 °C
<b>Insulation Class UL</b>	356 °F	180 °C
<b>Certifications</b>	UL-510 & CSA C-22-2	
<b>Government Specifications</b>	ASTM D5213 ( Replaces obsolete MIL-P-46112B)	

\*CAUTION: The above are typical values and should not be used in writing specifications. Customer is responsible to ensure product meets intended application requirements before approved for use.

UL component Recognition Guide OANZ2, File E20392, CSA C-22.2.RoHS Compliant.



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## GENERAL STORAGE CONDITIONS

Best stored between 50°F-80°F / 10°C-27°C, 25-50% relative humidity; out of direct sunlight.

## PRECAUTION REMINDER

Surface should be clean, free of oil, moisture and dirt before applying. Pressure-sensitive adhesive tapes may require pressure by roller, hand or press when applying. Not doing so may affect the general properties and appearance. Please inspect your surface prior to application; this tape may not adhere well to extremely uneven or distorted surfaces. Please remember to allow adequate time for full adhesive strength.

## WARRANTY INFORMATION

The following is made in lieu of all warranties, expressed or implied, including the warranty of merchantability and fitness for a particular or ordinary purpose. NITTO DENKO AMERICA warrants that its products meet the applicable specifications at the time of shipment from our warehouse and NITTO DENKO AMERICA's sole obligation shall be to replace any such quantity of the product which fails to meet NITTO DENKO AMERICA's specifications or to issue a credit for such merchandise for a period of six (6) months from the date of shipment.

NITTO DENKO AMERICA MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

NITTO DENKO AMERICA shall not be liable for any injury, loss or damage, direct or consequential, arising out of or in connection with the use or the inability to use the product, nor shall any recovery of any kind in total against NITTO DENKO AMERICA be greater in amount than the purchased price of the specific material sold causing the alleged loss, damage or injury. Before using, buyer shall be responsible to determine the suitability of the product for his intended use, and buyer assumes all risk and liability in connection therewith. The foregoing may not be altered except by an agreement signed by an officer of NITTO DENKO AMERICA.

Any delays in or failure by either party hereto in the performance of any obligations hereunder shall be excused if and to the extent caused by occurrences beyond such party's reasonable control, including Acts of God, strikes or other labor disturbances, war, whether declared or not, fire, inability to secure transportation or any other cause or causes which cannot be reasonably controlled by such party.

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NITTO DENKO AMERICA MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

NITTO DENKO AMERICA shall not be liable for any injury, loss or damage, direct or consequential, arising out of or in connection with the use or the inability to use the product, nor shall any recovery of any kind in total against NITTO DENKO AMERICA be greater in amount than the purchased price of the specific material sold causing the alleged loss, damage or injury. Before using, buyer shall be responsible to determine the suitability of the product for his intended use, and buyer assumes all risk and liability in connection therewith. The foregoing may not be altered except by an agreement signed by an officer of NITTO DENKO AMERICA.

Any delays in or failure by either party hereto in the performance of any obligations hereunder shall be excused if and to the extent caused by occurrences beyond such party's reasonable control, including Acts of God, strikes or other labor disturbances, war, whether declared or not, fire, inability to secure transportation or any other cause or causes which cannot be reasonably controlled by such party.