

# TECHNICAL DATA SHEET

Updated: August 2011 This datasheet replaces all previous versions



## P-421 NAT

### 5-MIL PTFE FILM TAPE

#### PRODUCT DESCRIPTION

P-421 is an extremely durable tape that fulfills requirements for in many applications. The P-421 is ideal for use in aerospace and electrical applications.

#### FEATURES

- Operates in high temperature applications and has a high dielectric strength.
- The PTFE backing helps to reduce friction creating slick surfaces helping materials move faster.
- Impervious to most chemical attacks including acids, solvents, fuels and most alkalies.

#### PRODUCT CONSTRUCTION

|                |
|----------------|
| PTFE FILM      |
| CURED SILICONE |

#### APPLICATION

- The ideal tape wherever a slick surface is required to help speed up the movement of materials reducing equipment wear, such as rollers in the web processing industry.
- High temperature applications such as with medium gauge magnet wires in larger sized components.
- Anti-vibration cushion, a gasket for flanges, joints and clamp connectors and as a high temperature release surface on heat sealer bars and rollers.
- Prevents electrolytic corrosion of dissimilar metals and to help mask parts placed in chemical cleaning or electroplating solutions.

#### PROPERTIES, CERTIFICATIONS AND SPECIFICATIONS

|                                  |  |               |
|----------------------------------|--|---------------|
| <b>Backing Material</b>          | PTFE Film  |               |
| <b>Adhesive</b>                  | Cured Silicone   |               |
| <b>Color</b>                     | Gray   |               |
|                                  | <b>Imperial</b>  | <b>Metric</b> |
| <b>Total Tape Thickness</b>      | 6.8 mil  | 0.17 mm       |
| <b>Tensile Strength</b>          | 66 lbs/in  | 116 N/10 mm   |
| <b>Elongation</b>                | 143%   | 143%          |
| <b>Adhesion to Steel</b>         | 37 oz/in   | 4.0 N/10 mm   |
| <b>Dielectric Strength</b>       | 17,800 volts   | 17.8 kV       |
| <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> | MIL-T-23594C Type I, Class 4/ DAN 269/ ASTM D2686/ CID-A-A-59474 Type I, Class 4 |               |
| <b>Boeing Specifications</b>     | BAC 5034 Type IV, Class 3B/ BAC 5157   |               |

\*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.

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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.