

# TECHNICAL DATA SHEET

Updated: February 2012 This datasheet replaces all previous versions



## P-422 NAT

### 2-MIL PTFE FILM TAPE

#### PRODUCT DESCRIPTION

P-422 has unsurpassed dielectric strength in volts-per-mil, coupled with outstanding thermal rating and conformability. This tape is perfect for insulating connections in high voltage coils and power cables.

#### FEATURES

- Chemically inert with excellent high temperature resistance.
- Operates over a wide range of temperatures: 250°F to 500°F / 121.1°C to 260°C.
- Resists destruction from most chemicals, including acids, solvents, fuels, and most alkalies.
- Economical while still exhibiting high performance features.

#### PRODUCT CONSTRUCTION

PTFE FILM
CURED SILICONE

#### APPLICATION

- High temperature capabilities make P-422 ideal for use in the cure process of composite parts, as a release wrap on rollers in paper and textile mills and food processing plants, release ply on molds in the plastics and chemical industries and is suitable for use in high heat autoclave applications in the aerospace market.
- Recommended for use as an anti-vibration cushion, a gasket for flanges, joints and clamp connectors and as a high temperature release tape surface on heat sealer bars and rollers.
- Used to provide a slick surface for the quick movement of materials and/or reduce equipment wear.

#### 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>	3.9 mil	0.1 mm
<b>Tensile Strength</b>	28 lb./in.	49 N/10 mm
<b>Elongation</b>	133%	133%
<b>Adhesion to Steel</b>	26 oz./in.	2.8 N/10 mm
<b>Dielectric Strength</b>	10,500 Volts	10.5 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>	ASTM D2686/ CID-A-A-59474A (Replaces obsolete MIL-I-23594C Type I, Class 1)	
<b>Boeing Specifications</b>	BAC 5034 Type IV/ BAC 5157/ BAC 5241/ BAC 5317/ BAC 5332/BAC 5514/ BAC 5548/ BAC 5578/ BAC 5597	

\*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.