**STRATAGLASS**

# LPCVD STANDARD NITRIDE

## Product Identification

| | |
|---|---|
| Film Name: | LPCVD Standard Nitride |
| Process ID: | D02LSN |
| Scientific: | Silicon Nitride - SiN |
| Classification: | Standard |

## Features

Low Cost
Variable Processing Parameters
Large Batch Capacity
Custom Fixturing Available

## Standards & Guarantees

Inspection: Standard I/O - First & Last
Guaranteed: Thickness (On Si Monitors)
Guaranteed: Refractive Index (On Si Monitors)

*Items may vary when ordering outside the standard*

## Other Information

- Thicknesses of 3000A or greater: LPCVD Silicon Nitride is a stoichiometric film with a highly intrinsic tensile stress, which induces cracking and delamination at thicknesses beyond 3000A. LPCVD Silicon Nitride is available up to 4000A thickness but carries no warranty against delamination beginning at 3000A. Strataglass offers two silicon rich formulas for reducing the bulk film stress. If you need thicknesses beyond 3KA please also consider our product types: "LPCVD Zero Stress Nitride" and "LPCVD Low Stress Nitride".

## Applications

Passivation
Encapsulation
Insulation Layer
Inter-layer Dielectric
Adhesion Layer
Wear Coating
Masking
Barrier Layer
Patterning

## Film Specifications

| | | |
|---|---|---|
| Film Thickness | Standard | 1,000A to 2,500A ± 10% |
| | Adjustable Range | 250A to 4,000A |
| Refractive Index | Standard | 2.00 ± .05 |
| | Adjustable Range | Fixed |
| Film Uniformity | Edge to Edge | 10% |
| | Across Load | 10% |
| Deposition Temp | Standard | 780C |
| | Adjustable Range | Fixed |
| Film Stress | Standard | 800 to 1200 MPa |
| | Adjustable Range | Fixed |

## Film Properties

| | | |
|---|---|---|
| Electrical | Insulating Quality | Very Good |
| | Dielectric Constant | N/A |
| Mechanical | Hydrogen Inclusion | Low |
| | Scratch Protect | Very Good |
| | Masking Ability | Good |
| | Diffusion Barrier | Very Good |
| | Thermal Stability | Very Good |
| Etch Rate | BOE (50%) | Very Slow |
| | KOH | N/A |
| | Plasma | Moderate |
| Hydrology | Hydrophobic | Weak |