

Product Identification

Film Name: LPCVD Low Stress Nitride
 Process ID: D02LLN
 Scientific: Silicon Rich Nitride - SiN
 Classification: Custom
RESTRICTED FILM

Applications

Passivation Insulation Layer
 Masking
 Wear Coating Patterning
 Barrier Layer Pressure Monitors
 Diaphragms Cantilevers
 MEMS Structure Material

Features

Variable Processing Parameters
 Film For Micro Device Technology
 Silicon Rich Film Composition (8:1)

Standards & Guarantees

Inspection: Standard I/O - First & Last
 Guaranteed: Thickness (On Si Monitors)
 Reference: Refractive Index (On Si Monitors) (Not Guaranteed)
 Reference: Stress (On Si Monitors) (Not Guaranteed)

Items may vary when ordering outside the standard

Other Information

- Silicon Rich Film Composition (8:1)
- LPCVD Low/Zero Stress Haze Risk: There is a risk of haze contamination of undetermined origin that can occur directly after a successful test. For this reason, haze contamination is not warranted against.
- About LPCVD Low/Zero Stress Applications: This film is suitable for masking and passivation applications, but is not intended for wide area free standing membrane applications.

Film Specifications

Film Thickness	Standard	1,000A to 5,000A ± 10%
	Adjustable Range	500A to 10,000A
Refractive Index	Standard	2.25 ± .10
	Adjustable Range	Fixed
Film Uniformity	Edge to Edge	10%
	Across Load	10%
Deposition Temp	Standard	810C
	Adjustable Range	780C to 810C
Film Stress	Standard	Reference: 250MPa ±
	Adjustable Range	Fixed

Film Properties

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