

**Product Identification**

Film Name: LPCVD Zero Stress Nitride  
 Process ID: D02LZN  
 Scientific: Silicon Rich Nitride - SiN  
 Classification: Custom

**RESTRICTED FILM**

**Applications**

Passivation                      Insulation Layer  
 Masking  
 Wear Coating                      Patterning  
 Barrier Layer                      MEMS Devices  
 MEMS Structure Material

**Features**

Variable Processing Parameters  
 Film For Micro Device Technology  
 Silicon Rich Film Composition (10:1)

**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 (10:1)
- 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	2.35 ± .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: 0MPa ± 100
	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	HF (49%)	20Å / min
	BOE (50%)	Very Slow
	Plasma	Moderate
Hydrology	N/A	N/A