



Gas Mixtures for Display Laser Annealing

HCl, Hydrogen, Neon, and Xenon

Praxair has combined its leading-edge precision mixture manufacturing technology with its captive rare gas production to offer a secure and cost-competitive supply of excimer laser gas mixtures.

Praxair's excimer laser products are available to support laser annealing for LTPS (Low Temperature Polysilicon) at the 308 nm wavelength.

Key Benefits

- Secure raw material supply
- Local production and warehousing
- High precision analytical and production control



HCl/Hydrogen/Neon (308 nm)		Spec
Major Components	HCl	4.5 or 5%
	H ₂	0.9 or 1%
	Ne	Balance
Impurities (ppm)	CO	< 1
	CO ₂	< 1
	H ₂ O	< 3
	N ₂	< 5
	O ₂	< 1
	THC	< 1

Xenon 99.999%		Spec
Impurities (ppm)	Ar	< 1
	CF ₄	< 0.5
	CO ₂	< 1
	H ₂	< 2
	H ₂ O	< 0.5
	Kr	< 5
	N ₂	< 2
	O ₂	< 0.5
	THC	< 0.5

Cylinder	Per customer specifications
Valve	CGA or DISS
Contents	Per customer specifications
Pressure	Per customer specifications

100 ppm H ₂ in Neon		Spec
Major Components	H ₂	100 ppm
	Ne	Balance
Impurities (ppm)	CH ₄	< 0.5
	CO	< 0.5
	CO ₂	< 0.5
	H ₂ O	< 0.5
	He	< 8
	N ₂	< 1
	O ₂	< 0.5

Neon 99.999%		Spec
Impurities (ppm)	CH ₄	< 0.5
	CO	< 0.5
	CO ₂	< 0.5
	H ₂ O	< 0.5
	He	< 8
	N ₂	< 1
	O ₂	< 0.5

About Praxair

Praxair is dedicated to helping electronics manufacturers lower costs, improve productivity, enhance technology and reduce environmental impact by serving as a single, integrated source for a variety of process gases, materials and related equipment and services.

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Printed in the United States of America
P-10522

North America
Phone 1 800 446 8765
Fax 1 800 447 5040
E-mail info@praxair.com

Europe
Process Gases
+32 14 250 611
+32 14 581 505

Asia
+886 3 554 3538
+886 3 554 539

www.praxair.com/electronics



Gas Mixtures for Integrated Circuit Laser Annealing

HCl, Hydrogen, Neon, and Xenon

Praxair has combined its leading-edge precision mixture manufacturing technology with its captive rare gas production to offer a secure and cost-competitive supply of excimer laser gas mixtures.

Praxair's excimer laser products are available to support annealing for integrated circuit processing at the 308 nm wavelength. These gas mixtures have been OEM and customer tested in high volume manufacturing operations.

Key Benefits

- OEM and customer tested
- Secure raw material supply
- Local production and warehousing
- High precision analytical and production control



HCl/Neon (308 nm)		Spec
Major Components	HCl	0.50%
	Ne	Balance
Impurities (ppm)	CO	< 1
	Fe	< 1
	H ₂ O	< 2
	N ₂	< 15
	O ₂	< 2

0.5% H ₂ in Neon		Spec
Major Components	H ₂	0.5%
	Ne	Balance
Impurities (ppm)	CO + CO ₂	< 015
	H ₂ O	< 5
	N ₂	< 5
	O ₂	< 1
	THC	< 0.1

10% Xe in Neon		Spec
Major Components	Xe	10%
	Ne	Balance
Impurities (ppm)	Ar	< 5
	CF ₄	< 0.1
	H ₂ O	< 1
	Kr	< 8
	N ₂	< 5
	O ₂	< 0.5
	THC	< 0.1

Neon 99.999%		Spec
Impurities (ppm)	CH ₄	< 0.5
	CO	< 0.5
	CO ₂	< 0.5
	H ₂ O	< 0.5
	He	< 8
	N ₂	< 1
	O ₂	< 0.5

Cylinder	Per customer specifications
Valve	CGA or DISS
Contents	Per customer specifications
Pressure	Per customer specifications

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North America
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Europe
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+32 14 250 611
+32 14 581 505

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+886 3 554 539

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